



## 全国矿产资源规划（2016—2020年）

### 排行榜

矿产资源是发展之基、生产之要，矿产资源保护与合理开发利用事关国家现代化建设全局。为保障矿产资源安全供应，推进资源利用方式根本转变，加快矿业转型升级和绿色发展，全面深化矿产资源管理改革，促进矿业经济持续健康发展，依据《中华人民共和国矿产资源法》、《中华人民共和国国民经济和社会发展第十三个五年规划纲要》和《全国主体功能区规划》，制定《全国矿产资源规划（2016—2020年）》（以下简称《规划》）。

《规划》是落实国家资源安全战略、加强和改善矿产资源宏观管理的重要手段，是依法审批和监督管理地质勘查、矿产资源开发利用和保护活动的重要依据。涉及矿产资源开发利用活动的相关行业规划，应当与本《规划》做好衔接。

《规划》以2015年为基期，以2020年为目标年，展望到2025年。

### 第一章 规划基础

#### 第一节 主要成效

我国是矿产资源大国，也是矿业大国，已发现矿产172种，探明资源储量的162种，品种较为齐全，勘查开发体系完整，主要矿产品产量和消费量居世界前列。《全国矿产资源规划（2008—2015年）》实施以来，找矿不断取得重大突破，资源供应能力明显增强，开发秩序全面好转，矿产资源管理改革逐步深化，管理能力和水平大幅提升，有效应对了国内外环境的复杂变化和国际金融危机的深层次影响，为保障国民经济持续快速发展做出了重要贡献。

地质找矿取得重大进展。2008年以来，累计投入地质勘查经费8000多亿元，新发现大中型矿产地1708处，找矿突破战略行动取得重大进展。石油、天然气新增探明地质储量保持高位增长，北方砂岩型铀矿、页岩气、天然气水合物勘探取得重大突破，铜、铝、铅、锌、金、钨、钼等金属矿产发现一批世界级大矿床，主要矿产资源储量在开采强度持续加大情况下实现普遍增长。完成全国矿产资源潜力评价、矿业权实地核查、矿产资源利用现状调查等三项矿产资源国情调查，摸清了油气和25种重要固体矿产资源潜力，掌握了资源开发利用基本情况，完成22种重要矿产利用效率调查评价。

矿业经济发展壮大。2008年以来，全国采矿业固定资产投资累计达9万亿元以上，原矿产量累计达700亿吨以上，煤炭、油气、金属、非金属采选及压延加工销售产值累计超过160万亿元。资源税、探矿权采矿权价款和资源补偿费累计收入9000亿元。因矿而兴的城市达到240座，现矿业从业人员1100余万。煤炭、十种有色金属、黄金等产量连续多年居世界第一，矿业经济规模不断增长。

矿业秩序加快好转。持续整顿规范矿产资源开发秩序，开展全国稀土专项整治等重大行动，强化规划布局和资源开发整合，实现了矿业投资热潮下开发秩序明显好转。全国矿山数量较规划基期减少3.3万个，其中小矿减少2.8万个，大中型矿山比例由7.8%提高到11.6%，违法违规案件总体下降近一半，一批重大矿业纠纷得到协调解决，基本形成规模开发、集约利用、安全生产、秩序良好的资源开发新局面。

资源环境保护水平稳步提高。推进矿产资源补偿费与资源储量消耗挂钩，组织实施矿产资源节约与综合利用专项，40个国家级综合利用示范基地建设成效显著，发布160余项矿产资源节约和综合利用标准。全面实施矿山地质环境治理恢复保证金制度。累计投入矿山地质环境治理资金773亿元，治理恢复面积32.5万公顷。推进661个国家级绿色矿山建设试点，矿业绿色转型升级步伐加快。

国际合作取得新进展。与100多个国家和地区建立矿业合作关系。矿产品贸易保持高速增长，2014年贸易总额达到1.1万亿美元，连续多年占全国商品进出口总额四分之一，2015年因价格因素下降为8000多亿美元，但进出口实物量仍然保持增长。健全境外矿业投资合作支撑服务体系，推动国有企业、地勘单位、民营公司多元投资，与80多个国家和地区合作开展能源资源勘查开发。

矿产资源管理逐步规范。坚持简政放权，转变职能，持续推进审批制度改革，完善矿产资源分级分类管理制度。健全矿业权市场交易体系，建成296个省级、市级矿业权交易机构。全面实行矿业权有偿取得制度。新疆油气改革试点顺利推

进，油气资源领域改革不断深化，页岩气探矿权招标全面推行。坚持阳光行政，完善管理制度，社会主义市场经济条件下的勘查开发监督管理体系基本建立。

第二节 面临形势

“十三五”时期，是我国全面建成小康社会的决胜阶段，经济保持中高速增长，产业迈上中高端水平，“四化”深入发展，新的增长动力正在孕育形成，新的增长点、增长极、增长带不断成长壮大，蕴藏巨大需求空间。同时，经济发展进入新常态，国内外资源形势发生深刻变化，供给侧结构性改革任务繁重，矿业结构调整、转型升级和管理改革十分紧迫。国际矿业市场波动加剧，地缘政治日趋复杂，矿业国际合作面临新的机遇和挑战。

资源安全始终是国家可持续发展的核心问题。我国资源总量大，人均少，资源禀赋不佳。多数大宗矿产储采比较低，石油、天然气、铁、铜、铝等矿产人均可采资源储量远低于世界平均水平，资源基础相对薄弱。当前，我国仍处于工业化中期阶段，能源资源需求增速放缓，但需求总量仍将维持高位运行，预计到2020年，我国一次能源消费量约为50亿吨标准煤，铁矿石7.5亿吨标矿，精炼铜1350万吨，原铝3500万吨。受国际矿业市场影响，国内勘查投入趋于下行，增大了我国矿产资源安全供应风险。

矿业形势深刻变化倒逼矿业结构调整和转型升级。受世界经济低迷、需求放缓、能源结构调整，以及前期高强度投资所形成的产能集中释放等因素影响，全球矿产品供应总体过剩，价格急剧下跌。国内矿产品价格竞争力不强，矿业企业普遍经营困难，煤炭、钢铁、水泥等行业产能严重过剩。同时，世界新能源、新材料等战略性新兴产业迅猛发展，非常规能源、稀土、铌、钽、锂、晶质石墨等战略性新兴产业矿产需求逐步凸显，我国相关矿产资源虽有比较优势，但产业发展层次低，资源保护力度有待加强。矿业发展必须适应市场变化，坚持创新发展，加快矿业结构调整和转型升级，增强可持续发展能力。

绿色发展要求资源开发利用方式加快转变。我国矿产开发集约化规模化程度不够，小型及以下矿山占比88.4%，但产能占比不足40%。部分矿山采富弃贫、采易弃难，资源浪费现象仍然存在。长年积累的矿山环境问题突出，采矿累计占用损毁土地超过375万公顷。加快转变资源开发利用方式，推动矿业绿色低碳循环发展的任务十分繁重。

发展更高层次开放型经济亟待提升矿业国际合作能力与水平。世界经济深度调整、复苏乏力，国际贸易增长低迷，全球矿业市场更加复杂多变，资源竞争和垄断不断加剧。推进“一带一路”建设，加强产能合作和基础设施、装备制造、国际金融等领域的广泛合作，为我国拓展矿业国际合作提供了新的发展空间和平台。但总体上看，我国企业参与国际矿业市场竞争的能力不够强，配套政策、人才队伍还不能满足矿业全球化和现代化的要求。

全面深化改革要求加快矿产资源管理体制机制创新。当前，矿业经济下行、企业经营困难、国际竞争加剧，矿业发展的活力动力不足；同时，资源约束趋紧、生态问题突出、民生诉求多元等相互交织，矿产资源管理领域深层次矛盾亟待解决。特别是资源配置政府干预仍然较多，矿业权市场规则不完善，现代矿业市场体系尚不健全，资源开发经济调节和利益分配机制不够合理。随着全面深化改革、全面依法治国的深入推进，必须进一步解放思想，理顺体制机制，释放改革红利，增强矿业发展活力动力。

第二章 指导思想、原则与目标

第一节 指导思想

高举中国特色社会主义伟大旗帜，全面贯彻党的十八大和十八届三中、四中、五中、六中全会精神，以马克思列宁主义、毛泽东思想、邓小平理论、“三个代表”重要思想和科学发展观为指导，深入贯彻习近平总书记系列重要讲话精神，按照“五位一体”总体布局和“四个全面”战略布局，牢固树立和贯彻落实创新、协调、绿色、开放、共享的发展理念，落实节约资源和保护环境的基本国策，坚持尽职尽责保护国土资源、节约集约利用国土资源、尽心尽力维护群众权益，以保障资源安全为目标，以提升矿业发展质量和效益为中心，强化资源保护和合理利用，正确处理政府与市场、当前与长远、局部与整体、资源与环境、国内市场与国际市场的关系，推进供给侧结构性改革，优化资源开发保护格局，加快矿业绿色转型升级，推动矿业国际务实合作，实现资源开发惠民利民，为全面建成小康社会提供可靠能源资源保障。

第二节 基本原则

——立足国内，守住资源安全底线。突出影响全局的能源矿产、大宗矿产和战略性新兴产业矿产，加快找矿突破，增加资源储量，扩大资源基础，加强资源保护与合理开发利用，完善矿产储备体系，稳定国内资源安全保障水平。

——改革创新，增强矿业发展动力。深入实施创新驱动发展战略，大力推进科技创新、管理创新和机制创新。加快推进行政审批制度改革，坚持简政放权、放管结合、优化服务，充分发挥市场在资源配置中的决定性作用和更好发挥政府作用，增强国内矿业的科技实力、发展活力和竞争力。

——优化布局，促进矿业协调发展。着力推动资源开发与区域发展、产业升级、环境保护、城乡建设相协调，实行矿种差别化、区域差别化管理，统筹矿产勘查开发布局与时序，形成协调有序的资源开发保护新格局。

——加快转型，推进矿业绿色发展。坚持生态保护第一，充分尊重群众意愿，促进资源开发与环境保护协调发展。树立节约集约循环利用的资源观，加强全过程节约管理，推动资源利用方式根本转变，加快发展绿色矿业，大力推进生态文明建设。

——互利共赢，深化国际矿业合作。深入推进“一带一路”矿业国际合作，加强境外矿产资源勘查开发，提升利用外资质量和水平，引进先进技术和管理经验，积极参与全球矿业治理，推动形成深度交融的互利合作格局。

——惠民利民，共享矿业发展成果。按照国家脱贫攻坚的总体部署，支持集中连片特困地区矿产资源开发利用，加快资源优势转化为经济发展优势。完善收益分配机制，推进中央、地方、企业、矿区群众资源开发收益共享，服务区域发展和民生改善。

第三节 主要目标

到2020年，基本建立安全、稳定、经济的资源保障体系，基本形成节约高效、环境友好、矿地和谐的绿色矿业发展模式，基本建成统一开放、竞争有序、富有活力的现代矿业市场体系，显著提升矿业发展的质量和效益，塑造资源安全与矿业发展新格局。

——国内资源保障基础进一步夯实。找矿突破行动取得新成效，形成一批重要矿产资源战略接续区。重要矿产资源储量保持稳定增长，力争新发现5—8个亿吨级油田和5—10个千亿方级气田，新发现和评价大中型矿产地300—400处。石油储采比保持在12以上，天然气储采比达到30。

——矿产资源供应保持安全稳定。建设103个能源资源基地，划定267个国家规划矿区，铁、铜、铝土矿、钾盐等战略性矿产国内安全供应能力得到巩固。划定28个对国民经济具有重要价值的矿区，强化重要矿产保护与储备。

——资源环境保护和合理利用水平显著提高。开发利用布局进一步优化，矿山规模化集约化程度明显提高，大中型矿山比例超过12%。节约与综合利用水平显著提高，主要矿产资源产出率提高15%。绿色矿业发展新格局基本形成。矿产资源开发的环境影响得到有效控制，开发区域生态环境不退化、环境质量不下降。矿山地质环境得到有效保护和及时治理，完成50万公顷历史遗留矿山地质环境治理恢复任务。

专栏1 矿产资源勘查主要指标			
序号	矿种	新增查明资源储量	
		单位	2016—2020年
1	石油	亿吨	50
2	天然气	万亿立方米	3
3	页岩气	万亿立方米	1
4	煤炭	亿吨	1000
5	煤层气	亿立方米	4200
6	铀矿	铀吨	XX
7	铁矿	矿石亿吨	80
8	锰矿	矿石亿吨	9
9	铜矿	金属万吨	800
10	铝土矿	矿石亿吨	6
11	镍矿	金属万吨	80
12	铅矿	金属万吨	2000
13	锌矿	金属万吨	3000
14	钨矿	WO <sub>3</sub> （65%）万吨	100
15	锡矿	金属万吨	70
16	锑矿	金属万吨	80
17	金矿	金属吨	3000
18	锂矿	Li <sub>2</sub> O万吨	60
19	石墨	矿物万吨	600
20	磷矿	矿石亿吨	8
21	钾盐	KCl亿吨	1
注：以上指标均为预期性指标。石油、天然气、页岩气和煤层气为新增探明地质储量。			

——矿业国际合作开创新局面。与基础设施建设、国际产能合作相配套，合作推动境内外石油、铁、铜、铝土矿、钾盐等大型矿产地勘查开发。培育一批具有国际竞争力的大型跨国矿业集团，健全矿业国际合作平台和服务保障机制，初步

形成与我国经济发展相适应的全球矿业合作体系。

——矿业创新发展能力全面提升。有序放开油气勘探开发市场，进一步扩大矿业权竞争性出让范围，大幅下放矿业权审批权限，建立矿产资源国家权益金制度，健全矿业权人信用约束监管制度。矿业资本市场、矿业权交易市场等现代市场体系更加健全。矿产资源法律法规体系更加完善，矿产资源治理体系和治理能力现代化取得重大进展。资源开发利用科技创新取得新突破。

2025年远景目标：

稳定开放的资源安全保障体系全面建立，资源开发与经济社会发展、生态环境保护相协调的发展格局基本形成，资源保护更加有效，矿业实现全面转型升级和绿色发展，现代矿业市场体系全面建立，参与全球矿业治理能力显著提升。

专栏2 矿产资源开发利用与保护主要指标				
指标		单位	2020年	属性
产资源年开采量	原油	亿吨	2	预期性
	天然气	亿立方米	1700	
	页岩气	亿立方米	300	
	原煤	亿吨	39	
	煤层气	亿立方米	160	
	铁矿	矿石亿吨	12	
	锰矿	矿石万吨	3000	
	铜矿	金属万吨	260	
	铝土矿	矿石万吨	7300	
	镍矿	金属万吨	16	
	铅矿	金属万吨	350	
	锌矿	金属万吨	625	
	钼矿	折合纯钼45%万吨	31	
	铋矿	金属万吨	16	
	锡矿	金属万吨	15	
	金矿	金吨	550	
	晶质石墨	矿物万吨	95	
	磷矿	矿石亿吨	1.5	
	钨矿	WO3(65%)万吨	12	约束性
	稀土	REO万吨	14	
矿业转型与绿色发展	资源保护与储备地	处	28	预期性
	大中型矿山比例	%	>12	
	矿产资源产出率提高比例	%	15	
	历史遗留矿山地质环境治理恢复面积	万公顷	50	约束性
注: 1.矿产资源产出率是指主要矿产资源实物量的单位投入所产出的经济量，其内涵是经济活动使用矿产资源的效率。矿产资源产出率=地区生产总值（GDP不变价）/主要矿产资源消费量。主要矿产包括石油、煤炭、天然气、铁、铜、铝、铅、锌、镍、磷、石灰岩等11种。2.煤层气指标是指煤层气（煤矿瓦斯）利用量。				

第三章 坚持创新发展增强矿业发展新动力

着力深化勘查开发体制机制改革，完善现代矿业市场体系，深入实施创新驱动发展战略，增强矿业发展活力与动力。

第一节 全面深化矿产资源管理改革

一、开放油气、铀勘探开发市场

依据油气体制改革总体方案，按照“放开市场、盘活区块、激发活力、加强监管”的思路，加快新疆改革试点及其经验总结推广，稳步推进油气勘查开采体制机制改革，逐步放开上游勘探开发市场，引入社会资本，加快勘探开发进程。完善勘查区块退出机制，促进区块流转，建立进退有序的勘查开采市场，激活勘查潜力。健全油气地质资料公开和共享机制，建立油气资源动态监管信息平台，向社会公示矿业权信息、勘探进程和勘探开发方案。探索建立一级登记、中央地方协同监管的油气资源管理新体制。加强国家油气督察员制度建设，推进督察工作常态化、规范化。

加大铀矿勘查开发体制改革。按照勘查社会化、矿业权市场化、投资多元化、开采专业化的原则，加大铀矿勘查开发体制改革，有序放开铀矿勘查开发市场，积极引导社会资本进入铀矿勘查领域，通过合资合作、入股、签订协议等方式，构建主体责任落实、多方投资合作的铀矿开发体系，加快铀矿勘查开发进程。推进油煤铀资源叠置区合作勘查、综合勘查，鼓励采取煤铀、油铀兼探和合作开发模式，实现资源综合利用。

二、扩大矿业权竞争性出让范围

坚持市场竞争取向，建立符合市场经济要求和矿业规律的矿业权出让方式。探索扩大矿业权竞争性出让范围，进一步推进探矿权采矿权实行招标拍卖挂牌方式出让，着力破解制度性障碍，充分调动市场各类主体的积极性，吸引社会资本和风险投资。严格限制和规范非竞争性出让行为，从严控制协议出让，规范探矿权转采矿权和财政全额出资探矿权出让。将矿业权出让竞争性环节纳入公共资源交易平台，推进全国统一的矿业权交易平台建设，建立全国联网的矿业权出让信息公开查询系统，进一步完善矿业权交易规则。

三、推进矿业权审批权限下放

持续推进简政放权，深化矿业权审批制度改革。根据国务院要求，调整下放矿业权审批权限，出台相关配套文件，细化下放权限管理措施。推进权力清单制度，简化审批程序，优化审批流程，推进矿业权审批管理精细化、标准化、公开化，统一规范全国矿业权审批登记行为。创新行政审批服务方式，扩大网上审批范围，加大矿业权出让转让公示公开力度。进一步升级完善矿业权统一配号系统，强化在线监管，制止违规行为。做好涉矿类行政审批中介服务的清理，降低行政审批成本，减轻企业负担。

四、推进矿产资源税费制度改革

推进矿产资源有偿使用制度改革。理清有偿取得、占用和开采中所有者、投资者、使用者的产权关系，建立矿产资源国家权益金制度，完善相关配套制度，保障国家所有者权益。调整探矿权采矿权使用费标准，建立动态调节机制，完善最低勘查投入制度。实施矿产资源税从价计征改革，合理确定资源税税率水平。全面清理涉及矿产资源的收费基金，规范征收行为。加强矿产资源税收优惠政策管理，提高资源综合利用效率。建立评估机制，将资源所有者权益和生态环境损害等纳入自然资源及其产品开发利用成本。

五、改革矿产资源监管方式

强化诚信体系建设，改革监管方式。全面推行矿业权人勘查开采信息公开制度，建立矿业权人“黑名单”制度，完善社会监督、政府抽查、失信退出相配套的矿产资源监管体系。加强矿产资源储量登记管理，健全符合我国国情并与国际对比互认的资源储量管理制度体系，加强资源储量动态监测。建立完善矿产资源勘查开发综合监管平台，开展动态巡查和全天候遥感监测，强化对无证勘查、无证开采等行为的执法监察及对浪费资源、破坏环境等行为的专项督查。

六、强化矿产资源宏观管理

制定战略性矿产目录。为保障国家经济安全、国防安全和战略性新兴产业发展需求，将石油、天然气、煤炭、稀土、晶质石墨等24种矿产列入战略性矿产目录，作为矿产资源宏观调控和监督管理的重点对象，并在资源配置、财政投入、重大项目、矿业用地等方面加强引导和差别化管理，提高资源安全供应能力和开发利用水平。

专栏3 战略性矿产目录（24种）	
能源矿产	石油、天然气、页岩气、煤炭、煤层气、铀
金属矿产	铁、铬、铜、铝、金、镍、钨、锡、钼、锑、钴、锂、稀土、锆
非金属矿产	磷、钾盐、晶质石墨、萤石

建立战略性矿产监测预警机制。加强监测预警能力建设，建立预警指标、安全临界值及综合评价模型，系统开展国内外矿产品供需和资源形势分析，强化应对国际重大冲突资源安全预警能力。建立战略性矿产监测预警报告制度，支撑政府决策，引导行业发展，加强政策储备，建立风险处置预案，增强风险防控能力。

专栏4 矿产资源信息化和安全预警工程
开展矿产资源开发利用水平调查评估，加强矿产资源战略形势分析，建设战略性矿产安全供应监测预警分析系统，建设矿业权、资源储量、开发利用和规划等核心数据库，定期发布矿产资源开发利用关键指标、安全供应研究成果和专题信息产品。



完善矿产资源宏观调控政策体系。配合完成《矿产资源法》及其配套法规修订工作。加强国家矿产资源安全战略研究。强化矿产资源规划管控，严格规划分区管理、总量调控和开采准入制度。着力推进矿业供给侧结构性改革，培育产业发展新动能。实施矿种差别化、区域差别化管理，对紧缺矿产，实施鼓励性勘查开发政策；对传统优势矿产，合理调控开发利用总量；对产能过剩类矿产，严格控制新增产能，坚决淘汰落后产能，有序退出过剩产能；对战略性新兴产业矿产，保障资源供应，强化高端应用。

七、健全现代矿业市场体系

按照产权明晰、规则完善、调控有力、运行规范的要求，建立健全矿业权有形市场，加快发展矿业资本市场和中介服务市场，形成统一开放、竞争有序的矿业市场体系。支持国有矿业企业改革，积极稳妥发展混合所有制企业，培育具有市场竞争力的矿业市场主体。培育资源型产品期货市场，发展商品期权、商品指数期货等交易工具，发挥期货市场价格发现和风险管理功能，增强服务实体经济能力。

第二节 创新机制推进找矿突破战略行动

深入实施找矿突破战略行动。将地质勘查作为立足国内保障资源安全的重要基础性工作，持续稳定予以加强。调整勘查重点，优化工作布局，以能源、紧缺及战略性新兴产业矿产为重点，在鄂尔多斯等16个含油气盆地勘查薄弱地区、东昆仑等26个重点成矿区带，部署开展1:5万地质矿产调查，查清成矿条件、预测资源潜力，圈定新的找矿靶区。划定297个重点勘查区，引导各类资金投入，加大找矿力度，发现一批可供开发利用的矿产地。加强新区、新层系、新领域、新类型油气资源基础性调查和评价。开展全国煤层气、油页岩、油砂、煤系矿产等资源潜力评价，摸清资源家底和开发利用条件。优先安排成矿地质条件有利、找矿潜力大和市场需求量大的危机矿山接替资源勘查，加快矿山密集区和老矿山外围的勘查进程。

完善找矿突破政策措施。着力打造以市场为导向的多元投资平台，鼓励和引导社会资本投入地质找矿。支持公益性地质工作，实行财政出资项目信息公开制度，服务和引导商业性矿产勘查。改革中央地质勘查基金，弥补矿业资本市场不足。推动建立符合我国国情的风险勘查资本市场，拓展风险勘查和矿业发展融资渠道。

第三节 大力推进能源资源基地建设

一、建设国家能源资源基地

综合考虑资源禀赋、开发利用条件、环境承载力和区域产业布局等因素，建设103个能源资源基地，作为保障国家资源安全供应的战略核心区域，纳入国民经济和社会发展规划以及相关行业发展规划中统筹安排和重点建设，在生产力布局、基础设施建设、资源配置、重大项目安排及相关产业政策方面给予重点支持和保障，大力推进资源规模开发和产业集聚发展。到2020年，大型煤炭基地生产能力达到全国的95%以上，石墨、稀土等资源基地超过80%，钨、锡、锑、磷、钾盐等资源基地达到50%左右。

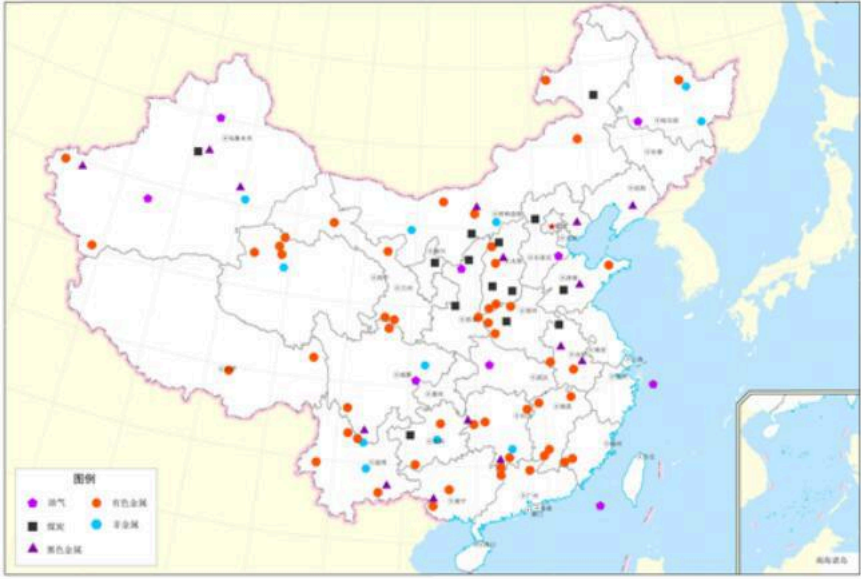


图1 全国重要能源资源基地示意图

二、强化重点矿区开发利用监管

以战略性矿产为重点，划定267个国家规划矿区，作为重点监管区域，打造新型现代化资源高效开发利用示范区，实行统一规划，优化布局，提高门槛，优化资源配置，推动优质资源的规模开发集约利用，支撑能源资源基地建设。保护性开采的特定矿种等实行总量调控矿种的矿业权投放及开采指标优先向国家规划矿区配置。划定28个对国民经济具有重要价值的矿区，作为储备和保护的重点区域。重点加强稀土等保护性开采的特定矿种、产能严重过剩矿种、自然保护区内已探明的大中型以上规模矿产地的储备和保护。探索建立多渠道投入机制，支持提高储备矿产地的勘查程度，严格保护和监管，防止压覆或破坏。建立动态调整机制，经严格论证和批准后，转为国家规划矿区进行统一规划、规模开发。



图2 国家规划矿区和对国民经济具有重要价值的矿区示意图

第四节 加快资源开发利用科技创新

一、打造地质矿产技术创新平台

推进地球深部观测与实验系统重大科学基础设施建设，统筹利用现有资源，加强矿产资源领域科研平台能力建设。加强矿产资源领域科技人才培养，建设新型矿业发展智库。强化企业的主体地位，鼓励科研单位与企业合作，形成多元化的科技投入体系，加速科技成果转化，打造政产学研用相结合的地质矿产科技创新平台。建立重大科技攻关、成果示范推广和产业化发展的联合推进机制，提高解决资源问题的科技支撑能力。

二、创新资源勘查开发技术

研究推进万米深地科学钻探，加强深部地质找矿重大科技问题攻关。拓展万米空间资源探测前沿技术，发展深部找矿立体综合勘查体系，形成3000米以浅勘探、2000米以浅开采成套技术能力，储备一批5000米以深勘查技术，油气勘探技术能力扩展到6500—10000米。实施主要油气盆地、胶东、长江中下游、南岭深部找矿示范工程，推动先进技术工艺装备产业化应用。突破深海进入、深海探测、深海开发关键技术，加大海洋矿产基础理论研究和关键技术攻关，建立深海地质调查、勘查理论和技术体系，推进海底富钴结壳、锰结核、稀土软泥等资源调查与开发利用研究。大力发展对地观测技术，推进国土资源业务卫星、科研卫星和卫星应用系统建设，强化自主、连续、稳定的高分辨率卫星数据保障能力，提高资源环境调查监测水平。按照绿色开发、节约集约、智能发展的思路，推动形成矿产资源精细高效勘查、智慧矿山技术装备、生态矿山与资源节约、矿山绿色开采与选冶、稀贵资源提取关键技术、煤炭提质与综合利用和典型二次资源循环利用等矿业技术体系。推动先进成熟技术转化为标准，鼓励社会团体、企业参与标准化建设，加强矿产资源领域标准研究。

三、大力推进“互联网+矿业”发展

建设矿业电商平台，创新矿业金融服务，促进资源、资本、技术、设备、服务等有机结合，形成上游与下游、传统与网络、线上与线下、场内与场外、商品与金融、国内与国外有效对接的多层次市场体系和完整产业链，提高资源配置效率，形成新的矿业经济增长点。加强行业标准化建设，加快建设智慧矿山，促进企业组织结构和管理模式变革，加快传统矿业转型升级。

专栏5 科技创新重大工程
<p>（一）深地资源勘查开采工程。</p> <p>开展深部地质成矿理论研究、勘探开发技术装备研发和大深度立体探测与深部找矿示范，突破3000米深地资源勘查技术，实现万米钻探技术能力。加快“透明地球”技术体系建设，实施重要含油气盆地和主要矿集区三维透明化工程，形成一批深地资源战略储备基地。</p> <p>（二）深海资源勘查开采工程。</p> <p>研制深远海油气及水合物勘探开发技术装备，推进大洋海底矿产勘探及海洋天然气水合物试采工程，加快“透明海洋”技术体系建设，为深海资源开发利用提供支撑。</p> <p>（三）对地观测卫星重大工程。</p> <p>整装建设3颗2米/8米光学业务卫星星座和1颗5米光学业务卫星，推进L波段差分干涉SAR和高分辨率多模综合成像科研卫星建设，形成高分辨率国土资源卫星观测体系基础能力，统筹推进国土资源卫星业务应用体系建设。</p>

## 第四章 坚持协调发展优化矿产开发保护格局

大力推进矿产资源开发利用结构布局调整，加强供给侧结构性改革，促进资源开发与区域发展、产业转型、环境保护、资源保护相协调，着力构建协调有序的矿产开发保护格局。

### 第一节 推动资源开发与区域发展相协调

#### 一、优化矿产资源勘查开发区域布局

落实国家区域发展总体战略和主体功能区战略，构建区域资源优势互补、勘查开发定位清晰、资源环境协调发展的空间格局。推进西部地区矿产开发与环境保护相协调，优先选择资源条件好、环境承载力高的地区，加强勘查开发，有序承接中东部产业转移，促进资源优势转化为经济优势。加快中部、东部、东北地区矿业转型升级，促进资源产业上下游协调发展，延伸产业链条，提高资源开发综合效益。引导“一带一路”国内沿线优势资源有序开发。推动长江经济带上下游矿产资源互动合作，优势互补。合理控制京津冀地区资源开发强度，加快矿业转型升级与协同发展。

#### 二、加快海域矿产资源勘查开发

落实海洋强国战略，维护国家海洋权益，大力加强海洋基础地质调查，加快研发深海资源勘查开采技术，积极推进海域油气勘探开发，开展天然气水合物资源勘查与商业化试采。积极参与国际海底矿产资源综合调查，加快推进大洋矿产资源勘查开发，持续开展南北极环境综合考察与资源潜力评估。统筹陆地和海洋资源利用，有序推进近岸、近海、深远海资源开发，着力发挥海洋在资源环境保障中的重要作用。

#### 三、严格矿产资源规划分区管理

构建统一衔接、功能互补、相互协调的规划分区管理体系，明确政策导向，优化资源开发空间格局。全面落实规划确定的勘查开发保护工作布局，重点调查评价区、矿山地质环境重点治理区，主要作为财政资金投入和政策支持的重点区域。划定重点勘查区，鼓励和引导商业性勘查投入。强化规划功能分区的管控作用，加强重点矿区矿产资源开发利用监管，严格禁止、限制勘查开采区管理，明确勘查开采准入条件，严格控制矿业权数量和开采规模。

#### 四、实施矿业权设置区划制度

各级规划应按要求开展矿业权设置区划，优化矿山布局，原则上一个勘查开采规划区块一个主体，严禁将矿产地化大为小和分割出让。对高风险矿产，原则上不划定勘查规划区块，达到详查以上（含详查）勘查程度的应划定开采规划区块。对低风险矿产，要依据资源赋存状况和地质构造条件，划定勘查开采规划区块。对砂石粘土等无风险矿产，划定集中区、备选区，也可根据管理需要划定开采规划区块，明确准入条件和矿山地质环境治理恢复措施，实行有偿出让。

### 第二节 推动资源开发与产业发展相协调

#### 一、优化能源矿产开发利用布局结构

加快清洁、高效能源矿产勘查开发，控制煤炭资源开采总量，大力推进绿色开采和清洁利用，促进清洁低碳、安全高效能源矿产供应体系建设。

（一）稳定国内石油供应。强化东部老油区挖潜，加大中西部油气开发力度，加快海域石油增储上产，力争石油年产量保持在2亿吨左右。东部地区以松辽盆地、渤海湾盆地为重点，加强精细勘探开发，积极发展先进采油技术，增储挖潜，努力减缓老油田产量递减。西部以塔里木、鄂尔多斯、准噶尔等盆地为重点，探明优质资源储量，实现增储稳产、力争上产。做强渤海、拓展南海、加快东海、探索黄海及其他海域，加快海洋石油勘探开发，保持老油田持续稳产，加快新区产能建设，大力提升海域石油产量。

（二）大力发展天然气。做大西部、做强中部、发展海域，加大天然气勘查开发力度。陆域以塔里木盆地、柴达木盆地、鄂尔多斯盆地、四川盆地等为重点，海域以南海为重点，力争获得重大突破，保持资源储量产量高位增长，增强天然气供应基础。加强西部低品位、东部深层、海域深水三大领域科技攻关，力争获得规模产量。

（三）加快煤炭结构调整与转型升级。按照严控增量、优化存量、清洁利用的要求，将积极稳妥化解过剩产能与结构调整、转型升级相结合，推进煤炭行业健康发展。限制东部、控制中部和东北、优化西部地区煤炭资源开发，推进神东、陕北等大型煤炭基地绿色化开采和改造。规划期内不再新建年产30万吨以下煤矿、90万吨以下煤与瓦斯突出矿井，限期淘汰年产15万吨及以下且发生较大及以上安全生产责任事故的煤矿、年产30万吨以下且发生重大及以上安全生产责任事故的煤矿，引导年产30万吨以下煤矿加快退出。鼓励煤炭企业兼并重组和资源整合，培育大型煤炭企业集团。到2020年底，煤炭矿山数量减少到6000家。积极推进煤炭资源从燃料向燃料与原料并重转变，促进煤炭分级分质和清洁利用。提高煤炭洗选比重，加大煤矸石、矿井水等资源综合利用力度。

（四）大力推进铀矿勘查开发。以鄂尔多斯、伊犁、二连、松辽、吐哈、巴音戈壁等盆地为重点，加大砂岩型铀矿勘查力度，到2020年，新发现铀矿产地20—25处。以江西相山、广东诸广山、广西苗儿山等为重点，加强深部及外围地区勘查，巩固硬岩型铀矿资源基础。在新疆伊犁盆地南缘、鄂尔多斯盆地北部、松辽盆地西南部、相山、诸广山南部等地区划定一批铀矿国家规划矿区。重点建设伊犁、鄂尔多斯、通辽铀矿基地，推动全国铀矿产能向北方砂岩型铀矿调整。

（五）加快推进煤层气开发利用。继续实行煤层气（煤矿瓦斯）开发利用中央财政补贴政策，健全完善煤层气、煤炭协调开发机制，推动山西保德等12个煤层气国家规划矿区规模开发，建设沁水盆地、鄂尔多斯盆地东缘煤层气产业化基地。



统筹协调煤炭、煤层气开发时序，做好采气采煤施工衔接，煤炭规划5年内建井采煤的区域，优先保证煤炭资源开发，有效利用煤层气资源；5年后建井采煤的区域，坚持先采气、后采煤。新设煤层气或煤炭探矿权，必须对煤炭、煤层气资源进行综合勘查、评价和储量评审备案。支持煤炭矿业权人变更增加矿种，对煤层气进行综合开发。

（六）推进页岩气规模开发利用。加强页岩气调查评价与勘查，获取优质规模储量。开展四川长宁－威远、重庆涪陵、贵州遵义－铜仁、云南昭通、陕西延安等地区页岩气勘查开发示范，发展适合我国地质特点的页岩气勘查开发关键技术和装备，继续实行页岩气开发利用补贴政策，推动低成本规模开发。强化页岩气开发环境保护。

（七）积极开发利用油页岩等能源矿产。加强松辽、鄂尔多斯、柴达木、准噶尔等盆地油页岩和油砂勘查，开展辽宁抚顺、吉林桦甸和扶余、山东龙口、甘肃窑街和新疆吉木萨尔等地区油页岩开发利用示范。加大天然气水合物勘探开发技术攻关力度，培育具有自主知识产权的核心技术，加快实施南海北部天然气水合物试采工程，突破安全开采技术瓶颈。

（八）因地制宜开发地热资源。开展地热水资源、干热岩和浅层地温潜力评价。推进东南沿海、京津冀、西南等地区地热资源调查与开发利用示范工程建设，推进梯级利用及循环利用工艺研究与示范。加强地热资源开发利用监测和管理，健全标准规范。实行扶持政策，创新开发利用模式，提高地热能利用比重。

二、保障重要金属矿产有效供给

以铁、锰、铜、铝、镍、铅、锌、钨、锡、锑、金、银等为重点，在资源条件好、环境承载力强、配套设施齐全、区位优势明显的地区，集中建设具有市场竞争力的大中型矿山，稳定国内有效供给水平。

（一）稳定国内铁矿供应能力。结合钢铁工业布局，重点建设鞍本、冀东、攀西、包白、忻州－吕梁、宁芜庐枞等铁矿基地，引导区内资源向大型矿业集团集中。新建西鞍山、马城等一批大型矿山。推进公平税负，减轻铁矿企业负担，提高国内铁矿企业的竞争力。加强桂西南、湖南永州等地区锰矿资源勘查开发。适度控制千米以深矿井和小规模低品位铁矿的开发，不再新建年产20万吨以下露天铁矿、10万吨以下地下铁矿、5万吨以下锰矿。

（二）适度扩大铜铝镍等矿产开发规模。巩固长江中下游、内蒙古乌努格吐山、甘肃金川、新疆阿勒泰等现有铜镍生产基地，建设铜产业集群，稳定铜矿生产能力在60－70万吨/年，保持镍矿生产能力在9－10万吨/年。新建青海野马泉－夏日哈木等铜镍基地，力争新增铜矿供应能力8－10万吨/年。鼓励大型矿业企业参与晋中、豫西北、桂西南、黔中北等铝土矿基地资源开发整合，力争新形成2000－3000万吨/年铝土矿供应能力。

（三）适当控制铅锌钨矿产开发利用强度。以南疆、甘肃南部、湘南－粤北、滇中－川南、滇西南等地区为重点，推进资源整合，鼓励资源向骨干企业集中。提高铅锌等矿山规模和环保准入门槛，加强现有矿山周边和深部找矿与资源储量升级工作，力争到2020年铅锌矿开采能力分别控制在350万吨/年、625万吨/年以内。建设豫西、陕西渭南、黑龙江伊春等钨矿基地，控制新增产能，有序开发利用。

（四）保护性开发钨锡锑等矿产。巩固赣南、湖南郴州等钨矿资源基地，稳定开采规模，合理利用共伴生钨、低品位钨和含钨尾矿资源。稳定锡锑开发格局，重点提升滇东南、广西河池、湖南安化冷水江等资源基地开采和供给能力，加强对藏南、藏北等地区锑矿资源管理和保护。

（五）鼓励金银等贵金属矿产勘查开发。加强贵金属矿产勘查，建设山东招远－莱州等资源基地，进一步提高安全、环保、能耗、工艺等办矿标准和生产水平，稳定国内金银等贵金属供给。鼓励企业按照市场规律开展兼并重组和资源整合，形成一批具有核心竞争力的大型黄金企业集团。不再新建地下开采规模低于3万吨、露天开采规模低于6万吨的黄金矿山。

三、推进非金属矿产合理开发利用

稳定磷硫钾等重要农用矿产资源供给，服务粮食安全战略。加强膨润土等重要功能性非金属矿产的保护和精深加工利用，开辟矿产资源利用新领域。严格砂石粘土、建筑石材等非金属矿产管理，规范开发秩序。

（一）保障磷硫钾矿产供给。建设滇中、贵州开阳－瓮福、湖北宜兴保等磷矿资源基地，发展先进采选技术，加强中低品位矿利用，磷矿石开采总量保持1.5亿吨/年左右，保障磷复肥供应能力。巩固青海察尔汗、新疆罗布泊钾盐基地，保持国内55%－60%的自给率。加强鄂尔多斯盆地等地区油钾综合勘查。鼓励固体钾盐和高承压卤水综合开发利用，提高锑、锂、硼、钠等综合回收水平。适度控制钾盐开采强度和新增产能，延长钾盐可持续供给年限。加强伴生硫、油气中硫资源的综合回收，年产量保持在1800万吨。

（二）推进重要功能性非金属矿产高效利用。开展重要功能性非金属矿产调查评价，查明资源家底，建设一批重要非金属开发利用示范基地。以辽宁建平、新疆夏子街、内蒙古赤峰等地区膨润土，江苏盱眙、安徽明光、甘肃临泽等地区凹凸棒石粘土，吉林临江、长白硅藻土，湖南湘潭海泡石等优质粘土资源为重点，强化引导与监管，促进资源合理开发利用，鼓励发展高端吸附环保材料、海上钻井泥浆材料、药用辅料产业，鼓励萤石、硼矿、高岭土、滑石、重晶石、硅灰石等矿产规模开发、绿色开发以及上下游产业结合发展。

（三）规范建材非金属矿产管理。适当控制水泥用灰岩、玻璃硅质材料开发利用规模。优化砂石粘土开发空间布局，引导集中开采、规模开采、绿色开采。探索在市、县域范围内实行砂石粘土采矿权总量控制，提高规模化集约化开采准入门槛，强化矿山地质环境治理恢复责任和监管。完善砂石粘土类采矿权出让管理办法，从严控制协议出让范围。

四、保障战略性新兴产业矿产供应

对我国战略性新兴产业发展具有重要支撑保障作用的矿产有50余种，重点加强资源基础好、市场潜力大、具有国际市场竞争力的稀土、稀有、稀散、石墨、锂等矿产的合理开发与有效保护，提升高端产业国际竞争力。



（一）有序开发稀土资源。加强稀土资源调查评价、勘查、开发利用的统一规划和监督管理，优化稀土开发和保护格局，强化稀土国家规划矿区管理，规范勘查开发秩序。建设内蒙古包头、四川凉山、江西赣州等6大稀土资源基地，巩固大型稀土企业集团主导的勘查开发和资源配置格局。

（二）保障稀有稀散金属资源供应。加大财政支持力度，提高地质调查程度，摸清稀有稀散金属资源家底。鼓励对西南三江、大兴安岭等成矿带进行稀有稀散金属综合评价与勘查，力争发现铌钽、锆钨等新的独立矿床。完善综合勘查技术方法和政策体系，强化对钨锡、铜、铅锌、铝、煤等矿产中共伴生稀散金属资源的评价与开发利用，实现有用组分梯级回收。加强尾矿库稀有稀散金属调查评价，鼓励开展矿山尾砂、煤矸石、熔炼渣等废弃物中稀散元素的综合回收。

（三）鼓励锂能资源金属矿产开发利用。加强青海察尔汗、西藏扎布耶等盐湖锂资源评价，突破盐湖卤水提锂关键技术。推进四川甘孜锂辉石矿、新疆阿勒泰锂矿、江西宜春锂云母矿资源勘查开发。划定国家规划矿区，建设四川甲基卡等锂矿新型能源资源基地，强化北疆、川西、武夷山等地区锂资源保护与合理利用。

（四）强化优质石墨资源保护和合理利用。完成全国石墨资源评价，划定一批国家规划矿区，强化石墨资源的合理开发与有效保护。加强黑龙江鹤岗与鸡西、内蒙古兴和与阿拉善、四川巴中优质石墨资源的再评价，打造一批石墨资源基地。鼓励石墨资源高效开发、优质优用，确保上游资源开发与高端新能源负极材料、石墨烯材料、油泄漏环保材料、渗硅石墨、生物医药材料等下游产业协同发展。

第三节 推动资源开发与环境保护相协调

一、强化矿产开发源头管控

依法严格控制采矿活动对生态环境的影响。坚持科学规划论证，提高矿产勘查、采选等准入条件。限制开采高硫、高灰、高砷、高氟煤炭和湿地泥炭，以及砂金、砂铁等重砂矿物。禁止开采蓝石棉、可耕地砖瓦用粘土等矿产。不再新建汞矿山，逐步停止汞矿开采。严格砂石粘土矿开采布局管控，避免滥采滥挖破坏环境。严格控制海砂（砾）和河砂（砾）开采，合理确定开采范围、开采时段和开采量。依法依规做好规划环评工作，加强与规划方案的互动衔接，强化环境问题的源头预防。

二、严格各类保护地矿产开发管理

全面落实主体功能区规划和生态保护要求，在自然保护区内严禁开展不符合功能定位的开发活动。在国家地质公园等地区，依法严格准入管理。全面清理各类保护地内已有矿产资源勘查开发项目，由各地区区别情况，分类处理，研究制定退出补偿方案，在维护矿业权人合法权益的前提下，依法有序退出，及时治理恢复矿区环境，复垦损毁土地；确需保留的极少数国家战略性矿产开发项目，按程序批准后，实行清单式管理，明确资源环境保护要求和措施，严格监管。

三、强化矿山生产过程环境监管

加强矿产资源开发过程的环境保护，最大限度减少或避免因矿产开发而引发的矿山环境问题。建立国家、省、市、县四级地质环境动态监测体系，强化矿山生产全过程的环境影响监测。加强对采矿权人履行矿山地质环境保护和治理恢复义务情况的监督检查，对造成重大环境影重大环境影响的，限期禁采限采，及时消除影响；对拒不履行治理恢复任务的，纳入企业经营异常名录管理；情节严重的，纳入严重违法名单，在国有土地出让和矿业权申请审批中依法予以禁入。将矿山地质环境保护与治理恢复责任落实情况，作为矿业企业信息社会公示和抽检的重要内容，强化社会监督和政府监管。

四、加强废弃矿山矿井监管

严格废弃矿山矿井后续处理处置，防止废弃尾矿、建设设施等污染土壤地下水等周边环境，对于煤矿等矿井矿坑，要实施封井回填，防止污染地下水，对废弃矿山实施生态修复。

第四节 推动资源开发与资源保护相协调

一、加强矿产资源保护

坚持在保护中开发，在开发中保护，采取有力措施，提升资源保护能力。建立保护性开采特定矿种动态调整机制，完善年度开采总量指标控制管理，合理调控钨、稀土等开采规模，严防过度开发。加强焦煤肥煤等稀缺和特殊煤种、晶质石墨、稀有稀散金属等战略性新兴产业矿产的保护，明确资源开发利用效率准入条件，确保优质优用。在资源分布集中地区，探索优势资源勘查、保护与合理利用新模式。对当前技术经济条件下无法合理利用的矿产和尾矿资源，严格限制开发，避免资源破坏和浪费。

二、探索建立矿产资源储备制度

建立国家和企业共同参与，矿产品和矿产地相结合的战略储备体系，保障矿产资源供应安全和代际公平。加大原油储备力度，科学合理确定有色金属、稀贵金属等国家战略储备规模、品种、结构，完善储备制度。健全矿产地储备机制，加强对钨、稀土、晶质石墨等战略性矿产重要矿产地的储备，探索采储结合新机制。以储备为目的，探索在自然保护区内由国家财政出资、市场化运作方式进行勘查，已探明和新发现的大中型矿产地纳入储备管理。建立储备矿产地的动态调整机制，根据经济社会发展需要适时动用。

专栏6 矿产资源保护和储备工程
科学确定储备的矿种、规模、布局，实施一批保护与储备项目，加强对钨、锡、锑、稀土、锂、晶质石墨、铬、特殊和稀缺煤种、铀等重要矿种，以及自然保护区内重要矿产地勘查，提高勘查程度，成果纳入储备管理。建立矿产地保护与储备的监管体系，加强保护和监管。

第五节 推进重要盆地多矿种协调开发

一、优化大型盆地资源开发布局和时序

加强鄂尔多斯、四川盆地等大型沉积盆地资源赋存规律研究，开展资源综合区划。按照空间划开、时序错开、急需先上、综合利用、合理避让的原则，统筹协调油气、铀矿、煤炭、煤层气、岩盐、铝土矿等资源的勘查开采布局、时序、规模和结构，明确准入条件，促进多种资源的科学开发、有序开发和综合开发。

二、创新多矿种协调开发机制和模式

完善矿业权管理制度，落实探矿权人综合勘查综合评价的责任。加强复合矿区开发的统筹协调，推动不同矿业权人合作开采，创新开发利用模式。加大政策扶持力度，对综合勘查开采取得显著成效的矿山企业，依法减免税费。探索建立中央、地方管理部门和相关矿业权人的定期联席会议制度，妥善解决有关问题，推动多矿种资源的联合开发。

第六节 统筹协调矿产开发与城乡建设

一、统筹地上地下资源开发

统筹规划布局，避免建城压矿或建矿废城，促进城市发展与矿产资源开发相协调。地上地下资源开发矛盾突出地区，在编制城镇建设、交通发展、土地利用等相关规划时，要考虑矿产资源禀赋状况，充分论证，为矿产开发留出空间。矿产资源规划编制应与城镇建设规划、土地利用总体规划等做好相互衔接。在重要工业区、大型水利工程设施、城镇市政工程设施、重大线性工程沿线等一定范围内，开采矿产资源要按照有关规定严格管理。

二、严格压覆矿产资源管理

完善压覆矿产资源管理制度，建设基础设施、建筑物或者建筑群、城镇发展区，未经科学论证和省级以上国土资源主管部门批准，不得压覆重要矿产资源。对于压覆重要矿产资源的建设项目，要严格论证，协调好经济补偿，尽量做到不压、少压，同时也要采取有效措施保障建设项目的顺利进行。

设置自然保护区、世界文化与自然遗产、森林公园、风景名胜区等范围时，涉及查明重要矿产资源的，有关主管部门应与国土资源主管部门进行充分衔接，严格论证。

第五章 坚持绿色发展强化资源节约集约循环利用

坚持节约优先，有度有序利用矿产资源，推动形成绿色开发方式，全面节约和高效利用资源，加强矿山地质环境治理恢复与矿区土地复垦，以资源利用方式转变推动经济发展方式转变。

第一节 合理调控能源资源开发利用总量

一、加快清洁能源开发利用

在稳定石油产量的基础上，大力发展天然气、煤层气、页岩气、地热等清洁能源，加快清洁能源供应，优化能源开发利用结构。到2020年，年产天然气1700亿立方米，煤层气（煤矿瓦斯）利用量160 亿立方米，力争形成300—500亿立方米页岩气产能，地热能开发利用量达到5000万吨标准煤。

二、全力化解煤炭过剩产能

规划期内，前三年除符合减量置换要求的项目外，停止审批煤炭划定矿区范围，严格审批煤炭采矿权新立和变更扩大生产规模申请，未经项目核准（产能核增），不予受理采矿权新立和变更扩大生产规模申请；后两年结合产能过剩化解效果和市场情况，有序新立采矿权。积极引导资源枯竭、赋存条件差、环境污染重、长期亏损的煤矿产能有序退出，关闭不具備安全生产条件和煤与瓦斯突出等灾害隐患严重的煤矿。用3至5年时间，退出产能5亿吨，减量重组5亿吨。到2020年，全国煤炭产量控制在39亿吨。

三、严格稀土等矿产开采管控

继续实施钨矿、稀土矿开采总量控制制度。建立稀土矿开采消耗储量与新增储量、退出开采能力与新增开采能力动态平衡机制。加快追溯体系建设，实现稀土矿产品从开采、冶炼分离到流通、出口全过程的追溯管理，实现来源可查、去向可追、责任可究。到2020年，稀土矿开采总量（稀土氧化物REO）控制在14万吨/年。鼓励伴生钨矿综合利用，纳入开采总量指标管理，钨矿开采总量指标控制在12万吨/年。限制钼矿等产能过剩矿产开发，新增产能要严格论证。

第二节 严格矿产开发准入条件

一、实行矿山最低开采规模设计标准

坚持矿山设计开采规模与矿区资源储量规模相适应的原则，严格执行矿山最低开采规模设计标准，严禁大矿小开、一矿多开。涉及民生建设的小矿开发，各省可根据实际情况明确矿山设计开采规模准入门槛，严格规范管理。产业政策准入门槛高于设计标准的，以产业政策为准。

二、严格矿产资源开发利用效率准入

完善重要矿产资源开采回采率、选矿回收率、综合利用率等标准。将矿产资源节约与综合利用指标纳入开采准入条件，严格禁止高耗能、高污染、严重浪费资源和缺乏资源综合利用设计的矿山建设立项。定期发布《矿产资源节约与综合

利用鼓励、限制、淘汰技术目录》，强化技术政策引导。

三、强化矿产资源绿色勘查开发

加快制订绿色勘查开发标准规范，加强绿色勘查开采新技术、新方法和新工艺研发与推广，积极推进绿色勘查与开发。发展采前有规划、采中能控制、采后可恢复的绿色采矿体系。构建绿色勘查开采新模式，因地制宜推广充填开采、保水开采、减沉开采等技术方法，推广区域矿山建矿模式、多井一场油田井工厂模式和边开采边复垦边归还采矿用地模式，推广节能减排绿色采选冶技术。

第三节 强化矿产资源节约与综合利用

一、提高矿产资源节约与综合利用水平

鼓励开采主要矿产的同时，对具有工业价值的共伴生、低品位矿产，进行综合开采、综合利用。鼓励煤炭与煤层气、铝土矿、油页岩、铀矿等共伴生资源综合利用。扩大煤矸石发电及生产建材、井下充填等利用规模，加快提高煤矸石综合利用率。提高黑色、有色金属共伴生资源综合利用水平，加强尾矿、固体废弃物和废水等资源化利用。建立矿产资源开发利用水平调查评估制度，实施动态评价与监测。矿山企业应当采取科学的开采方法和选矿工艺，减少尾矿、矸石、废石等矿业固体废物的产生量和贮存量。尾矿、矸石、废石等矿业固体废物贮存设施停止使用后，矿山企业应当按照国家有关环境保护规定进行封场，防止造成环境污染和生态破坏。

二、开展节约与综合利用关键技术攻关与推广示范

搭建产学研平台，充分发挥矿山企业技术创新的主体作用，加强技术攻关，突破石油天然气高效开采、固体矿产安全绿色采矿、低品位矿经济合理利用、复杂共伴生矿综合利用、尾矿及固体废弃物回收利用、非传统资源与替代资源创新利用等关键技术。实施一批矿产资源节约与综合利用示范工程，支持矿山企业技术、工艺和装备改造，加快转化推广应用。

专栏7 矿产资源节约与综合利用示范工程
开展煤炭、油气、铀矿、金属矿产、重要非金属矿产的安全高效采选技术攻关和综合利用，加强尾矿及固体废弃物高效利用、煤炭清洁利用，以及复杂共伴生矿高效利用等方面的技术攻关和推广应用。

三、完善矿产资源节约与综合利用激励约束机制

加大政策支持力度，优先向资源高效利用、技术先进、实施综合勘查开采的矿山企业供地。建立矿山企业高效和综合利用信息公示制度。健全准入、激励、监管、考核等机制和办法，形成覆盖勘查、评价、开发、闭坑全过程的矿产资源节约与综合利用制度体系。

第四节 大力推进矿山地质环境治理与矿区土地复垦

一、加快历史遗留矿山地质环境问题治理

全面开展矿山地质环境现状调查，摸清主要问题，明确治理责任。构建政府主导、政策扶持、社会参与、开发式治理、市场化运作的治理新模式，加大历史遗留矿山地质环境问题治理力度。实施重大工程，解决严重影响人居环境、工农业生产、城市发展的矿山地质环境突出问题。完善用地用矿政策，鼓励多元投入开展历史遗留矿山地质环境问题治理。



图3 全国矿山地质环境重点治理区示意图

专栏8 历史遗留矿山地质环境治理恢复重大工程
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加快推进闭坑矿山、废弃矿山、政策性关闭矿山和国有老矿山等历史遗留矿山地质环境问题治理，改善矿区及周边地区生态环境，完成治理恢复面积50万公顷。

二、积极开展矿区土地复垦

严格落实《土地复垦条例》，按照不欠新账、快还旧账的原则，采取有效措施，全面推进矿区损毁土地复垦。落实边开采、边保护、边复垦的要求，使新建、在建矿山损毁土地得到全面复垦。积极开展山水林田湖系统综合治理，提高历史遗留损毁土地复垦利用程度。按照谁投资谁受益的原则，逐步建立以政府资金为引导的多元化投入融资渠道，鼓励各方力量开展历史遗留损毁土地复垦。建立土地复垦监测和后评价制度，强化监管。加强土地复垦研究和先进技术推广应用，全面提升矿区土地复垦水平。

三、健全完善治理恢复长效机制

坚持企业所有、政府监管、专款专用，完善矿山地质环境治理恢复保证金制度。落实企业责任，建立矿山地质环境责任追究制度、环境损害赔偿与恢复制度，构建源头预防、过程控制、损害赔偿、责任追究的制度体系。加快矿山地质环境保护立法进程，严格落实各级政府矿山地质环境监管和历史遗留矿山地质环境问题治理的主体责任。

第五节 大力发展矿业领域循环经济

一、推进矿业循环经济发展

建立评价指标体系，科学评价矿业企业循环经济发展状况。加大矿产资源领域循环经济发展支持力度，鼓励矿业企业形成减量化、再利用、资源化的生产过程，创新有利于节约资源、保护环境的资源开发利用模式，树立矿业企业循环经济发展示范典型。

二、提升矿业企业节能减排水平

鼓励矿业企业开展系统节能，减少电耗、水耗和介质消耗，加强工序能耗管理，淘汰老旧设备和采选工艺，鼓励使用节能采选装备、三废资源化与无害化处置装备、选冶中间物料资源化与无害化处置设备。到2020年，力争重点企业选矿废水实现“零排放”，危险固废无害化处置率达到100%，矿业企业节能减排总体达到国际先进水平。

三、推进再生资源回收利用

开展钢铁、有色金属、稀贵金属等城市矿产的循环利用、规模利用和高值利用，开展二次资源分类、技术和产品再生性评价，鼓励废旧金属保质和梯级利用、二次资源与原生矿协同冶炼，限制新建单一再生铅冶炼项目，防止金属再生过程二次污染，力争实现金属再生比例提高5—10%，缓解原生矿产资源利用的瓶颈约束。实施原料替代战略，鼓励企业提高再生金属的使用比例。

第六节 加快发展绿色矿业

一、推动绿色矿山和绿色矿业发展示范区建设

推进国家、省、市、县级绿色矿山建设，加强示范引领，培育矿业发展新动力。按照政府组织、部门协作、企业主体、公众参与、共同推进的原则，发挥地方政府积极性，落实企业责任，建设一批绿色矿业发展示范区，由点到面、集中连片推动绿色矿业发展，着力打造布局合理、集约高效、生态优良、矿地和谐、区域经济良性发展的样板区。

专栏9 绿色矿山和绿色矿业发展示范区建设重大工程
建设一批国家级绿色矿山，推进技术、产业和管理模式创新，引领传统矿业转型升级。选择浙江湖州、河北承德、安徽芜湖、江苏沛县、江西赣州、湖南郴州、甘肃金昌等资源富集、管理创新能力强的地区，建设50个以上绿色矿业发展示范区。

二、构建绿色矿业发展长效机制

建立健全分地域、分行业的绿色矿山标准体系，将建设绿色矿山的要求贯穿于矿山规划、设计、建设、运营、闭坑全过程。完善配套支持政策，在用地、用矿等方面对绿色矿山建设予以倾斜。改革完善矿山环境治理恢复保证金制度，盘活资金使用。在高新技术企业认定等方面予以支持。全面落实资源综合利用、矿山环境保护、节能减排等相关优惠政策，逐步形成有利于绿色矿业发展的政策体系。

第六章 坚持开放发展促进全球矿业合作共赢

以“一带一路”建设为统领，充分发挥互补优势与潜力，加强能源资源合作，努力形成深度融合的互利合作格局，开创矿业对外开放新局面。

第一节 全面推进“一带一路”矿业合作

一、推进“一带一路”矿业合作共赢

实施“一带一路”基础地质调查与信息服务计划，加强周边国家重点成矿区带对比研究，开展乌拉尔—蒙古和环太平洋等成矿带的潜力评价。发挥基础地质调查的支撑服务作用，促进中资企业与“一带一路”沿线国家开展矿业投资合作。以油

气、铁、铜、铝等矿产为重点，探索“矿电水路港”联合投资模式，推进勘查－开发－冶炼－加工－制造全链条产能合作，建设一批绿色环保的石油化工、钢铁、有色等产能合作示范项目。

二、搭建矿业国际合作平台

办好中国国际矿业大会和中国－东盟、中俄、中蒙矿业合作论坛，完善中国中亚矿业合作论坛，打造具有国际影响力的矿业合作交流平台。加强援外对境外地质矿产资源调查的支持，搭建“一带一路”地区、中国－拉丁美洲、中国－非洲等区域性多边与双边合作平台，加强能源资源对话与沟通。与亚太经合组织、世界银行、国际地质科学联合会等多边机构开展务实合作，积极推进政策对话、经验交流、能力建设。加强矿业国际科技合作，共建地学领域联合实验室，加大对“一带一路”沿线国家地质矿产管理和技术人员培训力度。

第二节 提高矿业领域对外开放水平

一、营造良好的矿业投资营商环境

全面实行准入前国民待遇加负面清单管理制度，促进内外资企业一视同仁、公平竞争。放宽外商投资准入限制，推进外商投资管理信息化建设。积极实施促进矿业贸易投资自由化、便利化的政策措施，鼓励国外矿产资源勘查开发中介、技术和咨询服务公司等在中国执业经营。

二、积极有效引进境外资金和先进适用技术

坚持引资、引技、引智并举，完善政策措施，鼓励引进先进的勘查开发技术、管理经验和高素质人才。鼓励外资参与页岩气煤层气等资源开发、尾矿利用、矿山环境治理和生态修复等新技术开发应用项目。鼓励引入先进适用的节能降耗工艺、技术和设备。

三、促进矿业资本市场互联互通

积极培育公开透明、健康发展的资本市场，对矿产勘查、矿山建设、矿产开发全周期给予多渠道融资支持。加强与境外矿业资本市场的互联互通，推进矿业资本市场双向开放。发展区域性矿产资源市场平台和矿业金融资本中心。加快资本市场服务体系建设，为矿业企业提供专业化服务。

第三节 加快矿业“走出去”步伐

一、培育具有国际竞争力的一流矿业集团

优化政策环境，引导兼并、联合、重组，着力打造一批具有跨国经营能力的现代化矿业集团。增强文化包容与合作意识，推动矿业企业本土化经营，处理好与当地政府、社区关系，有效解决环境、原住民等问题，树立良好形象。创新境外矿业投资合作模式，鼓励企业采取股权收购、合资参股、私募基金、供销协议等方式开展多元投资。

二、健全矿业“走出去”服务保障机制

健全完善境外矿产资源勘查开发协调机制，加强经贸、外汇、海关、外交等政策协调和支持。加快平台建设，加大境外地质矿产信息和矿业投资项目的发布与共享力度。加强境外矿产资源勘查开发风险监测预警。积极培养复合型高级管理人才和矿业技术人才，保障境外矿业投资人才需求。

第四节 积极参与全球矿业治理

积极参与联合国、亚太经合组织、上海合作组织等重要国际组织关于矿业倡议的研究制定。主动参与多边、双边矿产资源合作规则制定，加强与各国矿业市场、政策、标准等领域对接，推动全球矿业一体化发展。引导行业协会、科研机构积极参与矿产贸易谈判和投资规则修订。推动建立区域性矿产品交易中心。加快实施自由贸易区战略，推动我矿业企业“走出去”，为我矿业企业对外投资合作创造更好的国际环境。

第七章 坚持共享发展实现资源惠民利民

发挥资源优势助力精准扶贫，完善资源开发收益分配机制，切实提高公益性地质调查服务水平，推动资源型城市转型发展，共享矿业发展福利。

第一节 发挥资源优势助力脱贫攻坚

坚持矿产开发与扶贫相结合，支持贫困地区依托资源优势，推动矿业经济、地质旅游等特色优势产业发展，促进脱贫致富。实行倾斜政策，在找矿突破重大工程部署、资源开发工作布局、矿业权投放等方面，优先向革命老区、民族地区、边疆地区、集中连片贫困地区安排。加大对贫困地区基础性公益性地质矿产调查支持力度。开展集中连片特殊困难地区地下水综合调查，解决人畜饮水困难。加大地质灾害防治和矿山地质环境治理等项目的支持力度，用好地质灾害避让搬迁政策，切实保障人民群众生命财产安全，改善当地居民生产生活条件。

第二节 完善资源开发收益分配机制

完善收益分配制度，矿产开发收益分配比例进一步向原产地倾斜。建立资源收益转换机制，加大资源收益在学历教育、技能培训、科技研发、培育替代产业等方面的投入。构建矿山企业与矿区群众利益共享机制，对贫困地区开发矿产资源占用集体土地的，试行给原住居民集体股权方式进行补偿。强化矿业企业社会责任意识，改善矿区所在地基础设施和矿区周边群众生产生活条件，优先吸纳本地劳动力，形成开一方资源、惠一方百姓、促一方发展的良好局面。

第三节 增强公益性地质调查服务供给

坚持需求驱动，强化服务，加快传统地质矿产工作向大地质、大资源、大环境转型，实施地质矿产调查计划，服务生态文明建设、防灾减灾、新型城镇化工业化农业现代化、重大工程、海洋强国建设五大需求。推动信息技术、地质科技创新与地质工作深度融合，建立基础地质调查数据汇聚、共享与更新机制，建设国家地质大数据服务平台，开发多元信息服务产品，促进地质矿产领域信息化深度应用。推动跨层级、跨部门信息共享、业务协同和制度对接。积极培育信息技术服务市场，引导信息服务机构发展，鼓励企业、公众和其他社会力量采取多种方式提供公益性地质矿产信息服务。

专栏10 基础性公益性地质矿产调查重大工程
<p>（一）陆域能源矿产地质调查。</p> <p>开展油气、页岩气、北方砂岩型铀矿资源调查评价，开展全国煤层气、特殊用煤、油页岩、油砂等资源国情调查，开展地热、干热岩资源调查。</p> <p>（二）重要矿产资源调查。</p> <p>开展重要成矿区带、重点勘查区 1:5万矿产地质调查，圈定新的找矿靶区。</p> <p>（三）重要经济区和城市群地质环境综合调查。</p> <p>开展京津冀、长三角、泛珠三角和海岸带、长江经济带等综合地质调查。</p> <p>（四）地质灾害防治和地质环境保护支撑。</p> <p>开展重要城镇、重大工程规划区地质灾害调查示范，开展重要经济带区域工程地质调查，开展西部生态脆弱区、集中连片特困区水文地质调查。</p> <p>（五）国土开发保护基础地质支撑。</p> <p>开展采煤沉陷区等重点地区矿山地质环境调查，开展全国自然资源遥感综合调查与监测，开展矿产资源集中区资源环境综合地质调查。</p> <p>（六）地质调查科技支撑。</p> <p>开展成矿环境、构造、沉积、岩浆和前寒武纪变质基底等专项调查与研究，实施深部地质调查工程。</p> <p>（七）“一带一路”基础地质调查与信息服务。</p> <p>建立“一带一路”国家和地区地质矿产和矿业投资环境信息系统。</p> <p>（八）地质数据更新与应用服务。</p> <p>开展国家地质数据库建设与整合、地学情报综合研究与产品开发，建设地质大数据支撑服务平台。</p> <p>（九）海洋基础性公益性地质调查。</p> <p>开展重点海域1:25万海洋区域地质调查和中大比例尺海岸带综合地质调查，建立海岸带地质环境综合监测体系，构建我国“数字海洋地质”基本格架和社会化服务体系。</p> <p>（十）天然气水合物勘查与试采。</p> <p>开展天然气水合物资源调查，实施海域天然气水合物试采工程。更新建造天然气水合物调查船和装备，建设天然气水合物勘查开发基地。</p> <p>（十一）全国油气资源勘查开采监管监测系统建设。</p> <p>建设油气动态监管监测信息平台，提供油气资源信息产品与社会化服务。</p>

第四节 促进资源型城市可持续发展

支持资源型城市发展壮大矿业经济，加快经济结构调整和转型升级，增强可持续发展能力。加大成长型资源型城市矿产勘查力度，规范开发秩序，形成一批能源资源基地。推进成熟型资源型城市矿产高效开发，鼓励规模化经营，延伸产业链条，加快转型升级。继续支持衰退型资源型城市接替资源找矿，加大历史遗留矿山地质环境治理力度，改善人居环境。创新投融资体制，借助资本市场化运作手段，实现产业的柔性改造和服务型转变。

第八章 规划实施与管理

第一节 加强组织领导

国务院各有关部门要按照职能分工，加强协调配合，搞好政策衔接，形成推动规划实施的合力。国土资源部要与发展改革委、工业和信息化部、财政部、环境保护部、商务部、能源局加强协调，及时研究解决规划实施中的重大问题。各地区要切实加强组织领导，全面落实全国矿产资源规划目标任务，抓紧组织和推进各级矿产资源规划编制工作。要明确规划实施责任分工，制定规划目标实施考核办法，对主要目标指标、重大工程、重大政策和重要改革任务落实情况加强考核，考核结果纳入绩效评价体系，确保规划确定的各项任务落到实处。

第二节 实施重大工程

创新重大工程投入机制。国家财政重点保障基础性公益性地质调查、战略性矿产勘查和重要矿产资源储备与保护。健全政府和社会资本合作（PPP）模式，积极引导社会资金投入，保障重要矿产资源开发利用、矿产资源节约与综合利用、绿色矿山和绿色矿业发展示范区建设、历史遗留矿山地质环境治理恢复、矿产资源储备与保护等项目实施。加强重大项目实施领导和组织协调，建立审批绿色通道，确保项目顺利推进。

第三节 强化监测评估

建立规划实施监测和动态评估机制，国土资源部会同有关部门加强矿业形势分析、产业发展的统计和监测，强化对规划实施和环境影响跟踪分析和动态评估，掌握总量调控、布局结构调整等主要目标和任务完成进度，针对规划实施中出现的新形势新问题，及时提出解决办法。

第四节 严格监督管理

完善规划实施监督管理机制，明确监管的重点内容、工作部署和具体监管手段。健全规划监督检查制度，实行专项检查与经常性监督检查相结合，采用卫星遥感等技术手段，扩大规划实施情况的监测范围，强化对规划重点区域矿产勘查开发活动的监督管理。及时纠正违反规划行为，必要时会同有关部门开展联合督查。

附表1 能源资源基地（103个）

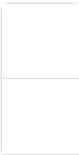
矿类	矿种	名称
能源矿产 (26)	油气 (9)	松辽盆地、渤海湾、鄂尔多斯盆地、塔里木盆地、准噶尔盆地、四川盆地、鄂西、南海北部、东海
	煤炭 (14)	神东、晋北、晋中、晋东、蒙东（东北）、云贵、河南、鲁西、两淮、黄陇、冀中、宁东、陕北、新疆
	铀矿 (3)	新疆伊犁、内蒙古鄂尔多斯、内蒙古通辽
黑色金属矿产 (15)	铁矿 (10)	辽宁鞍山、四川攀西、河北冀东、内蒙古包白、宁芜庐枞、山西忻州- 吕梁、山东鲁中- 鲁西、安徽霍邱、新疆天山、新疆西昆仑
	锰矿 (5)	黔东- 湘西、桂西南、新疆阿克陶- 乌恰、湖南永州、滇东南蒙自- 砚山- 丘北
有色金属矿产 (43)	铜矿 (7)	安徽铜陵- 芜湖、江西德兴- 九江、内蒙古呼伦贝尔、山西侯马- 垣曲、滇西北、西藏驱龙、西藏玉龙
	铝土矿 (6)	晋中、晋南、晋西、豫西北、黔中北、桂西南
	镍矿 (2)	甘肃金川、青海野马泉- 夏日哈木
	铅锌矿 (10)	内蒙古乌拉特后旗、内蒙古赤峰北、青海滩涧山- 锡铁山、甘肃陇南、广东韶关、滇中- 川南、滇西南、新疆乌恰、新疆和田火烧云、湘西花垣
	钨锡铋多金属 (7)	江西武宁- 修水、赣南、滇东南个旧- 马关都龙、广西河池、湖南郴州、湖南安化冷水江、甘肃张掖- 酒泉
	钼矿 (4)	黑龙江伊春、豫西、陕西渭南、安徽金寨
	金矿	山东招远- 莱州、河南小秦岭- 熊耳山、福建龙岩紫金山、贵州贞丰- 普安、青海东昆仑、甘肃甘南、湖南平江



	(7)	- 醴陵
非金属矿产 (5)	磷矿 (3)	滇中、贵州开阳- 瓮福、湖北宜兴保
	钾盐 (2)	青海察尔汗、新疆罗布泊
战略性新兴产业矿产 (14)	稀土 (6)	内蒙古包头、四川凉山、江西赣州、湖南江华、广西贺州、闽西南
	石墨 (6)	黑龙江鸡西、黑龙江鹤岗、内蒙古兴和- 包头、内蒙古阿拉善、四川巴中、攀枝花
	锂矿 (2)	川西甲基卡、青海一里坪- 东台

附表2 国家规划矿区（267个）

矿种	序号	名称	位置
煤炭 (162)	1	开滦矿区	河北唐山市
	2	邯郸矿区	河北邯郸市
	3	邢台矿区	河北邢台市
	4	峰峰矿区	河北邯郸市
	5	平原矿区	河北廊坊市、沧州市
	6	大同矿区	山西大同市、朔州市
	7	轩岗矿区	山西忻州市
	8	岚县矿区	山西太原市、忻州市、吕梁市
	9	平朔矿区	山西朔州市
	10	朔南矿区	山西朔州市
	11	河保偏矿区	山西忻州市
	12	西山矿区	山西太原市、吕梁市
	13	东山矿区	山西太原市
	14	霍东矿区	山西长治市、临汾市
	15	霍州矿区	山西临汾市、晋中市
	16	离柳矿区	山西吕梁市
	17	乡宁矿区	山西临汾市、运城市
	18	晋城矿区	山西晋城市
	19	潞安矿区	山西长治市
	20	阳泉矿区	山西阳泉市、晋中市
	21	汾西矿区	山西晋中市、吕梁市



煤炭 (162)	22	石隰矿区	山西吕梁市、临汾市
	23	武夏矿区	山西长治市、晋中市
	24	五九矿区	内蒙古呼伦贝尔市
	25	准哈诺尔矿区	内蒙古锡林郭勒盟
	26	查干淖尔矿区	内蒙古锡林郭勒盟
	27	吉日嘎郎矿区	内蒙古锡林郭勒盟
	28	哈日高毕矿区	内蒙古锡林郭勒盟
	29	赛汗塔拉矿区	内蒙古锡林郭勒盟
	30	绍根矿区	内蒙古赤峰市
	31	纳林希里矿区	内蒙古鄂尔多斯市
	32	纳林河矿区	内蒙古鄂尔多斯市
	33	呼吉尔特矿区	内蒙古鄂尔多斯市
	34	台格庙矿区	内蒙古鄂尔多斯市
	35	新街矿区	内蒙古鄂尔多斯市
	36	扎赉诺尔矿区	内蒙古呼伦贝尔市
	37	胡列也吐矿区	内蒙古呼伦贝尔市
	38	宝日希勒矿区	内蒙古呼伦贝尔市
	39	伊敏矿区	内蒙古呼伦贝尔市
	40	五一牧场矿区	内蒙古呼伦贝尔市
	41	诺门罕矿区	内蒙古呼伦贝尔市
	42	霍林河矿区	内蒙古锡林郭勒盟、通辽市
	43	农乃庙矿区	内蒙古锡林郭勒盟
	44	贺斯格乌拉矿区	内蒙古锡林郭勒盟
	45	白音华矿区	内蒙古锡林郭勒盟
	46	高力罕矿区	内蒙古锡林郭勒盟
	47	道特淖尔矿区	内蒙古锡林郭勒盟
	48	乌尼特矿区	内蒙古锡林郭勒盟
	49	五间房矿区	内蒙古锡林郭勒盟
	50	巴彦胡硕矿区	内蒙古锡林郭勒盟
	51	巴其北矿区	内蒙古锡林郭勒盟
	52	吉林郭勒矿区	内蒙古锡林郭勒盟



煤炭 (162)	53	白音乌拉矿区	内蒙古锡林郭勒盟
	54	那仁宝力格矿区	内蒙古锡林郭勒盟
	55	胜利矿区	内蒙古锡林郭勒盟
	56	准格尔矿区	内蒙古鄂尔多斯市
	57	准格尔中部矿区	内蒙古鄂尔多斯市
	58	神东矿区东胜区	内蒙古鄂尔多斯市
	59	万利矿区	内蒙古鄂尔多斯市
	60	高头窑矿区	内蒙古鄂尔多斯市
	61	塔然高勒矿区	内蒙古鄂尔多斯市
	62	上海庙矿区	内蒙古鄂尔多斯市
	63	乌海矿区	内蒙古乌海市
	64	白彦花矿区	内蒙古包头市、巴彦淖尔市
	65	巴彦宝力格矿区	内蒙古锡林郭勒盟
	66	阜新矿区	辽宁阜新市、锦州市
	67	沈阳矿区	辽宁沈阳市、辽阳市
	68	鸡西矿区	黑龙江鸡西市
	69	鹤岗矿区	黑龙江鹤岗市
	70	双鸭山矿区	黑龙江双鸭山市
	71	七台河矿区	黑龙江七台河市
	72	淮北矿区	安徽淮北市、宿州市、亳州市
	73	淮南矿区	安徽淮南市、阜阳市
	74	巨野矿区	山东菏泽市、济宁市
	75	济宁矿区	山东济宁市、泰安市、菏泽市
	76	黄河北矿区	山东聊城市、济南市、德州市
	77	永夏矿区	河南商丘市
	78	郑州矿区	河南郑州市、洛阳市
	79	平顶山矿区	河南平顶山市、许昌市
	80	义马矿区	河南三门峡市、洛阳市
	81	焦作矿区	河南焦作市、新乡市、济源市
	82	鹤壁矿区	河南鹤壁市、安阳市
	83	古叙矿区	四川泸州市



煤炭 (162)	84	筠连矿区	四川宜宾市
	85	六枝黑塘矿区	贵州六盘水市、安顺市
	86	普兴矿区	贵州黔西南州
	87	黔北矿区	贵州遵义市、毕节市
	88	织纳矿区	贵州毕节市
	89	水城矿区	贵州六盘水市
	90	发耳矿区	贵州六盘水市
	91	盘江矿区	贵州六盘水市
	92	恩洪矿区	云南曲靖市
	93	镇雄矿区	云南昭通市
	94	庆云矿区	云南曲靖市
	95	老厂矿区	云南曲靖市
	96	跨竹矿区	云南红河州
	97	小龙潭矿区	云南红河州
	98	昭通矿区	云南昭通市
	99	神东矿区神府区	陕西榆林市
	100	榆神矿区	陕西榆林市
	101	榆横矿区	陕西榆林市
	102	彬长矿区	陕西咸阳市
	103	永陇矿区	陕西宝鸡市、咸阳市
	104	韩城矿区	陕西渭南市
	105	澄合矿区	陕西渭南市
	106	蒲白矿区	陕西渭南市
	107	铜川矿区	陕西铜川市、渭南市
	108	古城矿区	陕西榆林市
	109	吴堡矿区	陕西榆林市
	110	黄陵矿区	陕西延安市
	111	旬耀矿区	陕西铜川市、咸阳市
	112	府谷矿区	陕西榆林市
	113	宁正矿区	甘肃庆阳市
	114	红沙岗矿区	甘肃武威市





煤炭 (162)	115	华亭矿区	甘肃平凉市
	116	灵台矿区	甘肃平凉市
	117	甜水堡矿区	甘肃庆阳市
	118	沙井子矿区	甘肃庆阳市
	119	吐鲁矿区	甘肃酒泉市
	120	木里矿区	青海海西州、海北州
	121	鱼卡矿区	青海海西州
	122	马家滩矿区	宁夏银川市、吴忠市
	123	积家井矿区	宁夏银川市、吴忠市
	124	韦州矿区	宁夏吴忠市
	125	灵武矿区	宁夏银川市
	126	鸳鸯湖矿区	宁夏银川市
	127	红墩子矿区	宁夏银川市
	128	萌城矿区	宁夏吴忠市
	129	大南湖矿区	新疆哈密市
	130	淖毛湖矿区	新疆哈密市
	131	沙尔湖矿区	新疆哈密市
	132	三塘湖矿区	新疆哈密市
	133	艾丁湖矿区	新疆吐鲁番市
	134	库木塔格矿区	新疆吐鲁番市
	135	五彩湾矿区	新疆昌吉州
	136	大井矿区	新疆昌吉州
	137	将军庙矿区	新疆昌吉州
	138	西黑山矿区	新疆昌吉州
	139	老君庙矿区	新疆昌吉州
	140	和什托洛盖矿区	新疆塔城地区
	141	阜康矿区	新疆昌吉州
	142	硫磺沟矿区	新疆乌鲁木齐市、昌吉州
	143	黑山矿区	新疆吐鲁番市
	144	伊宁矿区	新疆伊犁州
	145	尼勒克矿区	新疆伊犁州



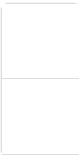
煤炭 (162)	146	玛纳斯塔西河矿区	新疆昌吉州
	147	四棵树矿区	新疆塔城地区
	148	沙湾矿区	新疆塔城地区
	149	昌吉白杨河矿区	新疆昌吉州
	150	阿艾矿区	新疆阿克苏地区
	151	阳霞矿区	新疆巴音郭楞州
	152	克布尔碱矿区	新疆吐鲁番市
	153	三道岭矿区	新疆哈密市
	154	巴里坤矿区	新疆哈密市
	155	塔城白杨河矿区	新疆塔城地区
	156	艾维尔沟矿区	新疆乌鲁木齐市、吐鲁番市
	157	喀木斯特矿区	新疆阿勒泰地区
	158	北塔山矿区	新疆昌吉州
	159	昭苏矿区	新疆伊犁州
	160	俄霍布拉克矿区	新疆阿克苏地区
	161	拜城矿区	新疆阿克苏地区
	162	塔什店矿区	新疆巴音郭楞州
煤层气 (12)	163	沁水- 电留矿区	山西晋城市、长治市
	164	左权- 昔阳矿区	山西晋中市、阳泉市
	165	沁源- 安泽矿区	山西长治市、临汾市
	166	古交- 交城矿区	山西太原市、吕梁市
	167	保德- 兴县矿区	山西忻州市、吕梁市、陕西府谷县
	168	柳林- 石楼矿区	山西吕梁市
	169	乡宁- 吉县矿区	山西临汾市
	170	两淮矿区	安徽淮南市、淮北市
	171	焦作- 新乡矿区	河南焦作市、新乡市
	172	恩洪- 老厂矿区	云南曲靖市
	173	盘县矿区	贵州盘县
	174	纳雍- 平坝矿区	贵州织金县、纳雍县
铀 (11)	175	蒙其古尔矿区	新疆察布查尔县
	176	库捷尔太矿区	新疆察布查尔县
	177	十红滩矿区	新疆吐鲁番市
	178	钱家店矿区	内蒙古通辽市
	179	大营矿区	内蒙古鄂尔多斯市
	180	纳岭沟矿区	内蒙古鄂尔多斯市



	181	皂火壕矿区	内蒙古鄂尔多斯市东胜区、伊金霍洛旗
	182	巴赛齐矿区	内蒙古苏尼特左旗、苏尼特右旗、二连浩特市
	183	相山矿区	江西乐安县
	184	长江矿区	广东韶关市
	185	龙首山矿区	甘肃永昌县
铁（4）	186	鞍本矿区	辽宁鞍山市、本溪市、辽阳市
	187	冀东司家营矿区	河北滦县、滦南县
	188	攀枝花钒钛磁铁矿区	四川攀枝花市
	189	白马钒钛磁铁矿区	四川攀枝花市
镍铜钴 （9）	190	白家嘴子铜镍矿区	甘肃金昌市
	191	大宝山铜多金属矿区	广东韶关市
	192	紫金山铜金矿区	福建上杭县
	193	德兴铜矿区	江西德兴市
	194	城门山铜矿区	江西九江县
	195	大红山铜矿区	云南新平县
	196	普朗铜矿区	云南迪庆州
	197	驱龙铜矿区	西藏拉萨市
	198	玉龙铜矿区	西藏昌都市
铝土矿 （5）	199	平果铝土矿区	广西平果县
	200	兴县铝土矿区	山西兴县、临县、岢岚县
	201	宁武- 原平铝土矿区	山西宁武县、原平市、朔州市朔城区
	202	汾阳- 孝义铝土矿区	山西汾阳市、孝义市、交口县
	203	交口- 汾西铝土矿区	山西吕梁市、晋中市、临汾市
锡 多金属 （3）	204	个旧锡矿区	云南个旧市
	205	都龙锡矿区	云南马关县
	206	大厂锡铅锌多金属矿区	广西南丹县
金 （17）	207	新城金矿	山东莱州市
	208	三山岛金矿	山东莱州市
	209	焦家金矿	山东莱州市
	210	玲珑金矿	山东招远市
	211	海域金矿	山东莱州市
	212	莱州纱岭金矿	山东莱州市
	213	夏甸金矿	山东招远市
	214	大尹格庄金矿	山东招远市
	215	山东中矿玲南- 阜山金矿	山东招远市
	216	早子沟金矿	甘肃合作市
	217	甘肃大桥金矿	甘肃西和县
	218	沃溪金锦钨矿	湖南怀化市
	219	江西金山	江西德兴市
	220	乌拉山- 哈德门金矿	内蒙古包头市、巴彦淖尔市



	221	金厂沟梁金矿	内蒙古赤峰市
	222	毕力赫金矿	内蒙古苏尼特
	223	浩尧尔忽洞金矿	内蒙古乌拉特中旗
稀土 (24)	224	龙南重稀土矿区（1）	江西龙南县
	225	龙南重稀土矿区（2）	江西龙南县
	226	寻乌轻稀土矿区	江西寻乌县
	227	定南中稀土矿区	江西定南县
	228	赣县（北）中稀土矿区	江西赣县
	229	赣县（中）重稀土矿区	江西赣县
	230	赣县（南）中稀土矿区	江西赣县
	231	安远中、重稀土矿区	江西安远县
	232	信丰（北）中稀土矿区	江西信丰县
	233	信丰（南）中、重稀土矿区	江西信丰县
	234	全南中稀土矿区	江西全南县
	235	新丰遥田稀土矿区	广东韶关市
	236	八尺稀土矿区	广东梅州市
	237	清远鱼湾稀土矿区	广东清远市
	238	敬梓稀土矿区	广东河源市
	239	博石稀土矿区	广东河源市
	240	江华稀土矿区	湖南江华县
	241	钟山- 富川花山稀土矿区	广西钟山县、富川县
	242	平南六陈- 大洲稀土矿区	广西平南县
	243	江州稀土矿区	广西江州区
	244	大青山稀土矿区	广西龙州县
	245	糯洞稀土矿区	广西岑溪市
	246	兴业稀土矿区	广西兴业县
	247	牦牛坪稀土矿区	四川凉山州
磷 (3)	248	安宁- 晋宁磷矿区	云南昆明市
	249	宜昌磷矿北部磷矿区	湖北神农架林区、保康县、兴山县
	250	德阳- 马边- 雷波磷矿区	四川德阳市、马边县、雷波县
钨 (5)	251	小柳沟钨钼矿区	甘肃肃南县
	252	大湖塘钨矿区	江西武宁县
	253	珊瑚钨锡矿区	广西钟山县、八步区
	254	博白三叉冲- 油麻坡钨矿区	广西博白县、陆川县
	255	云浮钨锡矿区	广东云浮市
锑 (1)	256	冷水江锡矿山锑矿区	湖南冷水江市
石墨 (6)	257	鸡西石墨矿区	黑龙江鸡西市
	258	萝北石墨矿区	黑龙江鹤岗市
	259	巴中石墨矿区	四川巴中市
	260	平度- 莱西石墨矿区	山东青岛市



	261	郴州石墨矿区	湖南郴州市
	262	南阳石墨矿区	河南南阳市
铅锌（4）	263	厂坝- 向阳山铅锌矿区	甘肃徽县、成县
	264	韶关凡口铅锌矿区	广东韶关市
	265	兰坪铅锌矿区	云南兰坪县
	266	和田火烧云铅锌矿区	新疆和田县
锂（1）	267	甲基卡锂矿区	四川甘孜州

附表3 对国民经济具有重要价值的矿区（28个）

矿种	序号	名称	位置
铀矿 (8)	1	青龙铀矿区	河北青龙县、辽宁省建昌县
	2	沽源铀矿区	河北沽源县
	3	努和廷铀矿区	内蒙古二连浩特市
	4	塔木素铀矿区	内蒙古阿拉善右旗
	5	大洲铀矿区	浙江衢州市
	6	鹿井铀矿区	江西崇义县
	7	下庄铀矿区	广东翁源县
	8	苗儿山铀矿区	广西资源县
铁钒钛（1）	9	红格南矿区	四川盐边县
铜多金属（5）	10	峡山- 岩山铜矿区	安徽池州市
	11	大碑铜矿区	江西彭泽县
	12	河西银铜多金属矿区	云南兰坪县
	13	多龙铜矿区	西藏阿里地区
	14	堆龙德庆县松多握铜钼矿区	西藏堆龙德庆县
铅锌 (2)	15	东莫扎扒铅锌矿区	青海杂多县
	16	虎山城- 老君山铅锌锡矿区	云南文山县
锑（1）	17	哈蒙西- 亚路沟锑金矿区	青海兴海县、同德县
铝土矿（2）	18	浣溪向斜北部铝土矿区	贵州道真县
	19	马鬃岭铝土矿区	贵州正安县
钨锡 (3)	20	朱溪外围钨铜矿区	江西浮梁县、乐平县
	21	万洋山- 诸广山钨锡矿区	江西崇义县、桂东县
	22	吞多玛锡多金属矿区	西藏类乌齐县
钼（1）	23	武山温泉钼矿区	甘肃武山县
稀土 (5)	24	关西稀土矿区	江西龙南县
	25	南桥稀土矿区	江西寻乌县
	26	河岭稀土矿区	江西寻乌县
	27	沙头稀土矿区	江西定南县
	28	梁山- 古楼稀土矿区	福建武平县、上杭县

附表4 重点矿种最低开采规模设计标准（35种）

矿产名称	单位/年	大型	中型	小型
煤（地下开采/露天开采）	原煤万吨	120/400	45/100	30/30

铁（地下开采/露天开采）	矿石万吨	100/200	30/60	5/5
锰	矿石万吨	10	5	2
铬	矿石万吨	10	5	2
铜	矿石万吨	100	30	3
铅	矿石万吨	100	30	3
锌	矿石万吨	100	30	3
钨	矿石万吨	80	40	5
锡	矿石万吨	100	30	3
钼	矿石万吨	100	30	3
铝土矿	矿石万吨	100	30	10
镍	矿石万吨	100	30	3
锑	矿石万吨	100	30	3
轻稀土	矿石万吨	100	50	15
重稀土	矿石万吨	100	50	10
金（岩金）	矿石万吨	15	6	3
磷（地下开采/露天开采）	矿石万吨	100/100	50/50	10/15
钾盐	矿石万吨	30	5	3
硫铁矿	矿石万吨	50	20	5
硼（B <sub>2</sub> O <sub>3</sub> ）	矿石万吨			5
重晶石	矿石万吨	10	5	3
萤石（CaF <sub>2</sub> ）	矿石万吨	10	8	3
石灰岩（水泥用/其他）	矿石万吨	100/100	50/50	30/20
冶金、水泥用天然石英砂	矿石万吨	60	20	10
玻璃、陶瓷等用石英岩、石英砂	矿石万吨	30	10	5
高岭土	矿石万吨	10	5	3
石膏	矿石万吨	30	20	5
滑石	矿石万吨	10	8	3
石墨（品质/隐晶质）	矿物/矿石万吨	1/10	0.6/8	0.3/5
云母（工业原料云母）	吨			2
石棉	石棉万吨	2	1	0.5
膨润土	矿石万吨	10	5	3
砖瓦用粘土	矿石万吨	30	13	6
建筑用石材	万立方米	10	5	1.5
饰面用石材	万立方米	1	0.5	0.3

附表5 重要矿产资源重点勘查区（297个）

矿种	名称
铀矿 -29	内蒙古东胜、通辽、二连盆地中北部、塔木素、红山子；新疆伊犁盆地南缘、吐哈盆地西南部、雪米斯坦、准噶尔盆地东部；辽宁连山关；甘肃龙首山；陕西蓝田、彬县- 麟游、商州- 丹凤- 商南；江西相山、桃山、白面石、河草坑、贵溪盛源、修水董坑- 保峰源；湖南诸广山中南部；广东诸广山南部、河源、贵东；广西苗儿山；浙江双桥- 新路；河北沽源、青龙；四川若尔盖



铁矿 -30	河北冀东地区；山西岚县- 娄烦、繁峙- 代县；辽宁鞍山- 本溪、建平- 宁城- 肖家营子；吉林白山市板石沟；江苏宁镇；安徽霍邱、马鞍山- 芜湖、庐江- 枞阳；福建龙岩马坑- 大田汤泉；江西赣中；山东德州- 莱芜- 淄博；河南舞阳- 新蔡；湖北鄂州莲花山- 黄石铁山、黄梅；四川攀西；西藏措勤尼雄；云南勐海西定- 澜沧- 景洪、陕西勉略宁、洋县毕机沟；甘肃北山营毛沱- 玉石山、肃北塔尔沟- 小柳沟；青海小沙龙- 扎麻什、卡尔却卡- 尕林格；新疆西天山阿吾拉勒、阿尔金山喀腊大湾、祁曼塔格、西昆仑塔什库尔干、天湖
锰矿 -11	辽宁凌源市太平沟- 瓦房；广西天等龙原- 德保那温；湖南花垣；四川长阳；重庆城口、秀山；贵州铜仁松桃、遵义、长兴- 万山；新疆波兹果尔、西南天山玛尔坎土- 穆呼
铬铁矿 -2	西藏扎囊- 朗县；新疆萨尔托海
铜矿 -46	安徽铜陵；内蒙古呼伦贝尔乌努格吐山- 甲乌拉、大兴安岭中段、大兴安岭南麓、乌拉特后旗霍各乞、白乃庙- 别鲁乌图- 毕力赫；辽宁清原红透山；黑龙江多宝山- 大新屯；福建龙岩紫金山；江西东乡- 德兴、九瑞地区、东岗山- 铜山、塔前- 朱溪- 赋春；湖北大冶- 阳新；湖南安化- 怀化；广东阳春、雪山嶂；云南东川汤丹、香格里拉格咱、巍山- 永平、兰坪白秧坪；西藏昂仁- 谢通门、米拉山、山南、尼木、多龙、玉龙；甘肃金川白家嘴子、公婆泉、白银厂；青海德尔尼- 上贡麻、多彩- 东莫扎抓；新疆哈密卡拉塔格、索尔库都克- 扎河坝、西天山那拉提山、哈密黄山- 镜儿泉、乌恰萨瓦亚尔顿- 萨热克、库木塔格、阔勒萨依、阿希铜、包古图、喀拉通克、阿舍勒- 多拉纳萨依、哈密土屋- 延东、琼河坝、三岔口
铝土矿 -8	山西原平- 宁武、霍西- 河东、阳泉- 昔阳；河南淝池礼庄寨- 平顶山；重庆武隆- 南川；贵州务正道、清镇- 修文；云南广南- 丘北- 砚山
铅锌矿 -42	内蒙古呼伦贝尔三河、东乌旗、白音查干；辽宁青城子；吉林天宝山- 开山屯；河南卢氏潘河、栾川；湖北长阳- 宣恩；湖南花垣- 凤凰、永顺；广东韶关凡口；广西环江北山、武宣- 象州大瑶山西缘、大新泗城岭- 隆安西大明山；四川宁南- 会东、白玉呷村；贵州普定那雍枝、都匀牛角塘- 南寨；云南兰坪金顶、鲁甸- 巧家、保山- 龙陵、镇康芦子园- 云高井槽；西藏芒康、查个勒、强龙、赵发涌- 干中雄、浦桑果、工布江达金达、山南扎西康；甘肃厂坝；陕西南郑碑坝、凤太地区、镇安- 宁陕；青海绿梁山- 锡铁山、沱沱河；新疆和田县火烧云、西昆仑岔路口- 甜水海、蒙库- 可可塔勒、西昆仑宝塔山、小土尔根- 库马苏、乌拉根、哈密彩霞山
钨矿 -10	江西崇- 余- 犹、修水大湖塘、香炉山- 黄竹坪、于都盘古山；西藏拉荣；甘肃小柳沟；新疆祁曼塔格- 白干湖、沙垅；陕西镇安县；云南麻栗坡南秧田
锡矿 -14	湖南茶陵锡田、香花岭- 骑田岭、天龙山- 锡矿山、衡阳盆地西南缘- 大义山；广东莲花山断裂带南西段、韶关梅花、厚婆坳；广西富川- 贺州- 钟山、元宝山、南丹大厂- 芒场；云南马关都龙、腾冲- 梁河、金平- 个旧；新疆祖鲁洪
锑矿 -2	陕西旬阳公馆- 青铜沟；新疆盼水河
钼矿 -10	河北丰宁、兴隆太平村、宣化贾家营；黑龙江松岭区岔路口、伊春鹿鸣- 小西林、延寿（滨东）；安徽金寨沙坪沟；陕西小秦岭、宁陕碾子坪- 镇安木王坪；新疆裕民苏尤河- 哈密白山- 东戈壁
镍矿 -4	吉林红旗岭- 漂河川；新疆若羌北山、白鑫滩- 路北；青海夏日哈木



锂矿 -7	四川康定- 道孚- 雅江、马尔康- 金川、扎乌龙；西藏龙木错- 布尔错、别若则错- 达瓦错、半岛湖- 雅根错、若水泉- 硕尔湖
金矿 -57	内蒙古赤峰南部；辽宁盖州- 岫岩、丹东五龙、北票宝国老；吉林珲春小西南岔- 农坪、海沟- 夹皮沟、六道沟、集安古马岭；黑龙江漠河砂宝斯、塔河宝兴沟、老柞山- 羊鼻山、东宁、东安- 汤旺河；浙江遂昌龙游；安徽休宁- 歙县；福建德化双旗山- 东洋；江西于都银坑- 宁都青塘；山东牟平- 乳山、莱州- 招远；河南小秦岭、熊耳山- 外方山、桐柏；湖南连云山、浏阳- 醴陵官庄；湖北黄陵、嘉鱼蛇屋山- 黄陵、鄖西湖北口- 高桥坡；广东河台；广西平南- 昭平、凤山金牙；海南昌江- 东方；贵州贞丰烂泥沟- 册亨丫他、贞丰- 普安；云南镇沅- 墨江、鹤庆北衙、绿春牛孔；陕西镇安金龙山、安康北部；甘肃岷县寨上- 马坞、崖湾- 大桥、两当- 成县、加甘滩- 旱子沟、玛曲大水- 碌曲拉尔玛；青海沟里- 抗得弄舍、五龙沟- 开荒北、秋智- 扎麻、昆仑河- 雪水河；新疆鄯善康古尔塔格、阿沙哇义、梧桐沟、双泉、雅江- 北喜马拉雅、阿尔金山喀腊大湾、西天山那拉提山、卡特巴阿苏、野马泉、红十井- 八一泉
银矿 -5	吉林四平山门；江西贵溪冷水坑；新疆维权、加满特、琼库都克
金刚石（2）	辽宁瓦房店；山东蒙阴
石墨矿（1）	内蒙古阿拉善右旗扎木敖包- 特拜
钾盐 -8	湖北荆州江陵；四川亭子铺、龙会、板桥；陕北盐盆；青海尕斯库勒- 冷湖、一里坪- 霍布逊；新疆罗布泊
磷矿 -9	辽宁抚顺- 清原；江苏连云港- 泗洪；湖南鹤峰- 东山峰；四川马边- 雷波；贵州开阳、瓮安- 福泉；新疆库鲁克塔格、科尔古琴、柯坪塔格

附表6 矿山地质环境重点治理区（524个）

省份	所在县（区、市）
天津 (1)	蓟县
河北 (10)	石家庄市井陉矿区；唐山市古冶区、滦县；秦皇岛市抚宁区、青龙满族自治县、昌黎县；张家口市宣化区、下花园区、怀来县；廊坊市三河市
山西 (27)	太原市古交市；大同市左云县、浑源县、灵丘县；朔州市平鲁区、山阴县；忻州市原平市、宁武县、保德县；阳泉市盂县、平定县；晋中市寿阳县、灵石县、介休市；长治市长治县、襄垣县、潞城市；晋城市泽州县、阳城县、高平市；吕梁市柳林县、孝义市、岚县；临汾市乡宁县、蒲县、洪洞县；运城市河津市
内蒙古 (26)	呼和浩特市新城区、回民区、十默特左旗；包头市土默特右旗、石拐区、白云鄂博区、达尔罕茂名安联合旗；乌海市海勃湾区、乌达区、海南区；赤峰市元宝山区；通辽市霍林郭勒市；满洲里市扎赉诺尔区；鄂尔多斯市东胜区、达拉特旗、伊金霍洛旗、准格尔旗、鄂托克旗；锡林郭勒盟锡林浩特市、西乌珠穆沁旗；乌兰察布市丰镇市、兴和县、察哈尔右翼后旗、集宁区；巴彦淖尔市乌拉特后旗；阿拉善盟阿拉善左旗
辽宁 (15)	沈阳市康平县；辽阳市灯塔市、弓长岭区；阜新市、抚顺市；本溪市平山区、溪湖区；葫芦岛市南票区、连山区；丹东市振安区、凤城市；朝阳市北票市；鞍山市千山区、海城市；营口市大石桥市
吉林 (7)	延边朝鲜族自治州敦化市、珲春市；长春市二道区；白山市江源区、长白县；通化市辉南县；吉林市蛟河市
黑龙江 (25)	哈尔滨市阿城区；黑河市嫩江县；鸡西滴道区、城子河区、恒山区、梨树区、麻山区、鸡东县；双鸭山岭东区、四方台区、集贤县、宝山区、宝清县；伊春市翠峦区、友好区、美溪区、五营区；鹤岗市兴安区、工农区；七台河市新兴区；牡丹江市林口县；大兴安岭地区漠河县、呼玛县、加格达奇区、塔河县

江苏 (19)	徐州市沛县、铜山区、贾汪区、睢宁县；连云港市海州区、连云区、灌云县；淮安市盱眙县；南京市六合区、浦口区、栖霞区、江宁区；镇江市丹徒区、丹阳县、句容市；常州市金坛区、溧阳市；无锡市宜兴市、江阴市
安徽 (23)	淮北市杜集区、相山区、烈山区、濉溪县；马鞍山市雨山区、博望区、当涂县；淮南市谢家集区、大通区、八公山区、潘集区、凤台县；宿州市埇桥区、萧县；阜阳市颍上县、颍东区；铜陵市铜官山区、狮子山区、铜陵县；亳州市蒙城县、涡阳县、利辛县；安庆市怀宁县
福建 (17)	宁德市古田县；福州市罗源县、连江县、晋安区；龙岩市新罗区、永定区、漳平市、连城县、长汀县；泉州市石狮市、南安市、晋江市、安溪县、德化县；三明市大田县、永安市、尤溪县
江西 (25)	景德镇乐平市；新余市分宜县；萍乡市湘东区、上栗县、芦溪县；宜春市袁州区、丰城市、高安市；吉安市吉水县、永新县、安福县；鹰潭市贵溪市；上饶市德兴市、万年县、铅山县；九江市星子县、瑞昌市；抚州市东乡县；赣州市赣县、信丰县、大余县、安远县、龙南县、于都县、寻乌县
山东 (21)	青岛市黄岛区、莱西市、平度市；淄博市张店区、周村区；枣庄市滕州市、薛城区；烟台市牟平区、福山区；潍坊市安丘市、青州市；济宁市嘉祥县、邹城市；泰安市新泰市、肥城市；威海市环翠区；日照市莒县；莱芜市莱城区；临沂市蒙阴县、平邑县；菏泽市巨野县
河南 (23)	南阳市淅川县、桐柏县、方城县；鹤壁市；许昌禹州市、襄城县；洛阳市新安县；郑州市巩义市、新密市、登封市；安阳市安阳县、林州市；新乡市凤泉区、辉县市；焦作市；三门峡市陕县、渑池县、义马市；商丘市永城市；信阳市；平顶山市汝州市、舞钢市；驻马店市泌阳县
湖北 (26)	武汉市东湖新技术开发区；黄石市大冶市、阳新县；鄂州市鄂城区；宜昌市夷陵区、兴山县、远安县、长阳县、宜都市；襄阳市襄城区、保康县；荆门市东宝区、掇刀区；十堰市茅箭区、丹江口市；恩施州恩施市、建始县、咸丰县；孝感市云梦县、应城市、大悟县、孝昌县；咸宁市赤壁市；黄冈市武穴市；荆州市松滋市；神农架林区
湖南 (25)	永州市零陵区、冷水滩区；湘潭市湘潭县、雨湖区；邵阳市邵东县、邵阳县；郴州市临武县、桂阳县、宜章县；娄底市涟源市、新化县、冷水江市；常德市临澧县、石门县；衡阳市常宁市、横山县；岳阳市平江县；益阳市安化县、赫山区；长沙市浏阳市；湘西自治州花垣县；株洲市攸县；怀化市会同县、溆浦县；张家界市慈利县
广东 (7)	韶关市仁化县、曲江區；云浮市云城区、云安县；清远市阳山县、英德市；河源市连平县
广西 (32)	桂林市雁山区、兴安县、全州县、恭城县、荔浦县、阳朔县；柳州市柳南区、城中区、鱼峰区、鹿寨县、融安县；崇左市江洲区、大新县、凭祥市、天等县、扶绥县；贺州市平桂管理区、钟山县；河池市大化县、巴马县、南丹县；贵港市港北区、桂平市、平南县；来宾市武宣县、象州县、合山市；玉林市玉州区、陆川县；百色市靖西县、田阳县；北海市合浦县
海南 (4)	昌江黎族自治县；三亚市；海口市；定安县
重庆 (17)	北碚区；九龙坡区；沙坪坝区；大渡口区；渝北区；綦江区；南川区；荣昌区；秀山县；城口县；南岸区；巴南区；永川区；奉节县；合川区；长寿区；开县
四川 (22)	广安市华蓥市、泸州市古蔺县、叙永县；宜宾市筠连县、兴文县、珙县；乐山市犍为县；广元市旺苍县；攀枝花市西区、米易县、盐边县；凉山州会理县、会东县、冕宁县；阿坝州九寨沟县；甘孜州康定市；德阳市绵竹市；雅安市宝兴县、石棉县；自贡市大安区、贡井；绵阳市江油市
贵州 (20)	贵阳市开阳县；遵义市红花岗区、新蒲区、务川县；铜仁市碧江区、万山区；毕节市七星关区、大方县、威宁县、赫章县、织金县、纳雍县；六盘水市水城县、钟山区、盘县、六枝特区；安顺市西秀区、平坝县；黔南州瓮安县、福泉市
云南 (20)	昆明市东川区、晋宁县；曲靖市麒麟区；玉溪市易门县、澄江县、元江县；保山市隆阳区、腾冲市；昭通市镇雄县；普洱市澜沧县；红河州个旧市、开远市、元阳县；文山州麻栗坡县、马关县、广南县、富宁县；德宏州梁河县；怒江州兰坪县；迪庆州香格里拉市
西藏 (8)	拉萨市城关区、堆龙德庆区、柳梧新区；日喀则市昂仁县、桑珠孜区；昌都市卡若区；林芝市巴宜区；山南地区乃东县
陕西 (25)	榆林市榆阳区、神木县、府谷县、横山县；渭南市蒲城县、白水县、合阳县、澄城县、韩城市、潼关县、华阴市；延安市黄陵县；铜川市王益区、耀州区；咸阳市彬县、泾阳县；宝鸡市凤县、太白县；汉中市略阳县、宁强县、勉县；安康市旬阳县；商洛市山阳县、柞水县、镇安县



甘肃 (20)	兰州市红古区、七里河区；金昌市永昌县；白银市平川区；武威市天祝县；张掖市山丹县；平凉市华亭县、崆峒区、崇信县；酒泉市玉门市；定西市岷县；陇南市成县、徽县、文县、礼县、西和县、两当县；甘南州玛曲县、合作市、碌曲县
青海 (12)	西宁市湟中县；海东市乐都区；海北州祁连县、门源县、刚察县；海南州泽库县；玉树州曲麻莱县、称多县、治多县；海西州天峻县、德令哈市、格尔木市
宁夏 (13)	银川市兴庆区、西夏区、灵武市、永宁县、贺兰县；吴忠市利通区、青铜峡市、盐池县；固原市彭阳县；中卫市中宁县；石嘴山市大武口区、惠农区、平罗县
新疆 (34)	乌鲁木齐市米东区、乌鲁木齐县、达坂城区；伊犁州察布查尔县、尼勒克县、伊宁县、巩留县、霍城县；巴州库尔勒市、和静县、轮台县；阿勒泰地区阿勒泰市、富蕴县、青河县；塔城地区乌苏市、沙湾县、扎里县、额敏县、和布克赛尔县；昌吉州阜康市、昌吉市、吉木萨尔县；吐鲁番市托克逊县、高昌区、鄯善县；哈密地区哈密市、巴里坤县；和田地区和田市、和田县、皮山县；克州乌恰县；阿克苏温宿县、库车县、拜城县





## National Mineral Resources Planning (2016–2020)

Mineral resources are the foundation of development and essential for production. Their protection and rational development and utilization are crucial to the overall national modernization drive. To ensure the secure supply of mineral resources, promote fundamental changes in resource utilization, accelerate the transformation and upgrading of the mining industry and promote green development, comprehensively deepen reforms in mineral resource management, and promote the sustained and healthy development of the mining economy, the National Mineral Resources Plan (2016–2020) (hereinafter referred to as the "Plan") has been formulated in accordance with the Mineral Resources Law of the People's Republic of China, the Outline of the 13th Five-Year Plan for National Economic and Social Development of the People's Republic of China, and the National Major Functional Area Plan.

The Plan is a key tool for implementing the national resource security strategy and strengthening and improving macro-management of mineral resources. It also serves as a crucial basis for the legal approval, supervision, and management of geological exploration, mineral resource development, utilization, and protection activities. Relevant industry plans involving mineral resource development and utilization activities should be aligned with this Plan.

The Plan takes 2015 as the base year, 2020 as the target year, and looks forward to 2025.

### Chapter 1 Planning Basis

#### Section 1 Main Achievements

my country is a major country in both mineral resources and mining. With 172 discovered minerals and proven reserves for 162, China boasts a comprehensive range of minerals and a robust exploration and development system. The country ranks among the world's top producers in both production and consumption of major mineral products. Since the implementation of the "National Mineral Resources Plan (2008–2015)," significant breakthroughs have been made in prospecting, resource supply capacity has been significantly enhanced, development order has improved comprehensively, and reforms in mineral resource management have been gradually deepened, significantly improving management capabilities and standards. China has effectively responded to complex changes in the domestic and international environment and the profound impact of the international financial crisis, making a significant contribution to ensuring the sustained and rapid development of the national economy.

Significant progress has been made in geological prospecting. Since 2008, over 800 billion yuan has been invested in geological exploration, resulting in the discovery of 1,708 new large and medium-sized mineral deposits, and significant progress has been made in the strategic initiative to achieve breakthrough mineral exploration. Newly discovered geological reserves of oil and natural gas have continued to grow at a high rate. Major breakthroughs have been made in the exploration of sandstone-type uranium deposits, shale gas, and natural gas hydrates in northern China. A number of world-class deposits of copper, aluminum, lead, zinc, gold, tungsten, and molybdenum have been discovered. Reserves of major mineral resources have generally increased despite continued increases in mining intensity. Three national mineral resource surveys have been completed: a national mineral resource potential assessment, an on-site verification of mining rights, and a survey of the current status of mineral resource utilization. These surveys have clarified the potential of oil, gas, and 25 important solid mineral resources, providing a basic understanding of resource development and utilization. Furthermore, surveys and evaluations of the utilization efficiency of 22 important minerals have been completed.

The mining economy has grown and prospered. Since 2008, fixed asset investment in the mining industry has exceeded 9 trillion yuan nationwide, with raw ore production exceeding 70 billion tons. The value of coal, oil and gas, metal, and non-metallic mining, processing, and sales has exceeded 160 trillion yuan. Resource taxes, exploration and mining rights fees, and resource compensation fees have generated a cumulative revenue of 900

### Rankings

- 01

The National Development and Reform Commission held an August press conference to interpret the current economic situation and policies

2025-08-29
- 02

The Party Leadership Group of the National Development and Reform Commission of the Communist Party of China: Accelerate the construction of a new development pattern

2025-07-16
- 03

Domestic refined oil prices will be adjusted according to the mechanism on August 26, 2025

2025-08-26
- 04

Artificial intelligence has great potential in empowering China's manufacturing powerhouse

2025-08-29
- 05

Notice on Issuing the Second Batch of Experience Lists for Promoting High-Quality Development in Jiashan County, Zhejiang Province (Development and Reform Commission Regional [2025] No. 755)

2025-09-02

billion yuan. 240 cities have prospered due to mining, and the mining industry currently employs over 11 million people. China has ranked first in the world in production of coal, ten non-ferrous metals, and gold for many years, and the scale of the mining economy continues to grow.

The order in the mining industry is improving rapidly. Continuous efforts to rectify and standardize the order of mineral resource development, including the nationwide special campaign to rectify rare earth production, have strengthened planning and resource development integration, leading to a significant improvement in development order amidst the mining investment boom. The number of mines nationwide has decreased by 33,000 compared to the planning base period, including 28,000 smaller mines. The proportion of large and medium-sized mines has increased from 7.8% to 11.6%. The overall number of illegal and irregular cases has dropped by nearly half, and a number of major mining disputes have been resolved through coordinated efforts. A new era of resource development characterized by large-scale development, intensive utilization, safe production, and good order has been established.

The level of resource and environmental protection has steadily improved. We are promoting the linkage between mineral resource compensation fees and resource reserve consumption, organizing and implementing special projects for mineral resource conservation and comprehensive utilization. The construction of 40 national-level comprehensive utilization demonstration bases has yielded significant results, and over 160 standards for mineral resource conservation and comprehensive utilization have been issued. A deposit system for mine geological environment remediation and restoration has been fully implemented. A total of 77.3 billion yuan has been invested in mine geological environment remediation, and 325,000 hectares have been remediated and restored. 661 national-level green mine construction pilot projects have been promoted, accelerating the green transformation and upgrading of the mining industry.

International cooperation has made new progress. Mining cooperation partnerships have been established with over 100 countries and regions. Trade in mineral products has maintained rapid growth, reaching \$1.1 trillion in 2014, accounting for a quarter of China's total imports and exports for many consecutive years. While this figure declined to over \$800 billion in 2015 due to price factors, the volume of physical imports and exports has continued to grow. We have improved the support service system for overseas mining investment and cooperation, promoting diversified investment by state-owned enterprises, geological exploration units, and private companies, and collaborating with over 80 countries and regions on energy resource exploration and development.

Mineral resource management is gradually being standardized. Adhering to streamlining administration and delegating power, we are shifting functions, continuously advancing the reform of the approval system, and improving the tiered and categorized management system for mineral resources. We are improving the mining rights market trading system, establishing 296 provincial and municipal mining rights trading institutions. A system for obtaining mining rights for a fee has been fully implemented. Xinjiang's oil and gas reform pilot program is progressing smoothly, with reforms in the oil and gas resource sector deepening. Bidding for shale gas exploration rights is being fully implemented. Adhering to transparent administration and improving management systems, a basic system for the supervision and management of exploration and development under the socialist market economy has been established.

Section 2 The Situation We Face

The 13th Five-Year Plan period marks the decisive stage in my country's efforts to build a moderately prosperous society in all respects. The economy will maintain medium-to-high-speed growth, industries will reach medium-to-high-end levels, and the "four modernizations" will be further developed. New growth drivers are emerging, and new growth points, growth poles, and growth belts are constantly growing and expanding, creating enormous potential for demand. At the same time, economic development has entered a new normal, and the domestic and international resource landscape has undergone profound changes. Supply-side structural reforms are a daunting task, and restructuring, transformation, upgrading, and management reforms in the mining industry are urgent. Intensified volatility in the international mining market and increasing geopolitical complexity present new opportunities and challenges for international mining cooperation.

Resource security has always been a core issue for national sustainable development. my country has a vast total resource base, but a small per capita resource base, resulting in a poor resource endowment. Most major mineral reserves are relatively low. Per capita recoverable reserves of oil, natural gas, iron, copper, and aluminum are far below the global average, resulting in a relatively weak resource base. Currently, my country is still in the mid-stage of industrialization, and while the growth rate of energy and resource demand is slowing, total demand is expected to remain high. By 2020, my country's primary energy consumption is projected to be approximately 5 billion tons of standard coal, 750 million tons of standard iron ore, 13.5 million tons of refined copper, and 35 million tons of primary aluminum. Influenced by the international mining market, domestic exploration investment has declined, increasing the risk to my country's mineral resource security supply.

Profound changes in the mining industry are forcing structural adjustments, transformation, and upgrading within the sector. Driven by factors such as the global economic downturn, slowing demand, energy restructuring, and the concentrated release of production capacity resulting from previous high-intensity investment, the global supply of mineral products is generally oversupplied, leading to a sharp decline in prices. Domestic mineral product prices lack competitiveness, mining companies are generally facing operational difficulties, and industries such as coal, steel, and cement are experiencing significant overcapacity. At the same time, strategic emerging industries



such as new energy and new materials are rapidly developing globally, and demand for minerals from strategic emerging industries such as unconventional energy, rare earths, niobium, tantalum, lithium, and crystalline graphite is gradually increasing. While my country enjoys comparative advantages in these mineral resources, the industry is at a low level, and resource conservation efforts need to be strengthened. The mining industry must adapt to market changes, adhere to innovative development, accelerate structural adjustments, transformation, and upgrading, and enhance its capacity for sustainable development.

Green development requires accelerated transformation in resource development and utilization. my country's mineral development remains insufficiently intensive and large-scale. Small and smaller mines account for 88.4% of the country's total production capacity, yet they account for less than 40% of production capacity. Some mines exploit rich resources and abandon poor ones, exploiting easy resources and abandoning difficult ones, resulting in persistent resource waste. Long-standing environmental problems in mines are prominent, with mining occupying and damaging over 3.75 million hectares of land. Accelerating the transformation of resource development and utilization and promoting green, low-carbon, and circular development in the mining industry is a daunting task.

Developing a more open economy at a higher level urgently requires enhancing the capacity and level of international cooperation in the mining industry. The world economy is undergoing profound adjustments and a sluggish recovery, while international trade growth is sluggish. The global mining market is becoming increasingly complex and volatile, with increasing competition and monopoly over resources. Promoting the Belt and Road Initiative and strengthening cooperation in production capacity and infrastructure, equipment manufacturing, and international finance are providing new development space and platforms for my country to expand international cooperation in the mining industry. However, overall, Chinese companies lack the capacity to compete in the international mining market, and supporting policies and talent pools are insufficient to meet the requirements of mining globalization and modernization.

Comprehensively deepening reform requires accelerating innovation in the systems and mechanisms for mineral resource management. Currently, the mining industry is facing a downturn, operational difficulties for businesses, and intensified international competition, undermining the vitality and driving force behind its development. Furthermore, tightening resource constraints, prominent ecological issues, and diverse livelihood demands are intertwined, creating deep-seated contradictions in mineral resource management that urgently need to be addressed. In particular, government intervention in resource allocation remains significant, market regulations for mining rights are imperfect, the modern mining market system is still underdeveloped, and mechanisms for regulating resource development and distributing benefits are insufficiently rational. As comprehensive reform and the rule of law deepen, we must further emancipate our minds, streamline systems and mechanisms, unleash the dividends of reform, and enhance the vitality and driving force behind mining development.

## Chapter II Guiding Ideology, Principles and Objectives

### Section 1 Guiding Ideology

We will hold high the great banner of socialism with Chinese characteristics, fully implement the spirit of the 18th National Congress of the Communist Party of China and the Third, Fourth, Fifth, and Sixth Plenary Sessions of the 18th Central Committee of the Communist Party of China, take Marxism-Leninism, Mao Zedong Thought, Deng Xiaoping Theory, the important thought of "Three Represents," and the Scientific Outlook on Development as our guidance, thoroughly implement the spirit of General Secretary Xi Jinping's series of important speeches, and in accordance with the "five-in-one" overall layout and the "four comprehensive" strategic layout, firmly establish and implement the development concept of innovation, coordination, green development, openness, and sharing, implement the basic state policy of conserving resources and protecting the environment, persist in conscientiously protecting land and resources, making efficient and intensive use of land and resources, and wholeheartedly safeguarding the rights and interests of the people. With the goal of ensuring resource security and the focus on improving the quality and efficiency of mining development, we will strengthen resource protection and rational utilization, properly handle the relationship between the government and the market, the current and long-term, the local and the overall, resources and the environment, and the domestic and international markets, advance supply-side structural reform, optimize the pattern of resource development and protection, accelerate the green transformation and upgrading of the mining industry, promote practical international cooperation in the mining industry, ensure that resource development benefits the people, and provide reliable energy and resource guarantees for the building of a moderately prosperous society in all respects.

### Section 2 Basic Principles

Focusing on domestic resources, we will safeguard the bottom line of resource security. We will prioritize energy minerals, bulk minerals, and strategic emerging industry minerals that have a significant impact on the overall situation. We will accelerate breakthroughs in mineral exploration, increase resource reserves, expand the resource base, strengthen resource protection and rational development and utilization, improve the mineral reserve system, and stabilize the level of domestic resource security.

-- Reform and innovation will enhance the driving force of mining development. We will thoroughly implement the innovation-driven development strategy and vigorously promote scientific and technological innovation, management innovation, and institutional innovation. We will accelerate the reform of the administrative approval system, adhere to streamlining administration and delegating power, combining regulation and supervision, and optimizing services. We will give full play to the decisive role of the market in resource allocation and better leverage the role of the government to enhance the scientific and technological strength, development vitality, and competitiveness of the domestic mining industry.

Optimize the layout and promote the coordinated development of the mining industry. Focus on promoting the coordination of resource development with regional development, industrial upgrading, environmental protection, and urban and rural construction. Implement differentiated management of mineral types and regions, coordinate the layout and timing of mineral exploration and development, and form a new pattern of coordinated and orderly resource development and protection.

Accelerate transformation and promote green development in the mining industry. Prioritize ecological protection, fully respect the wishes of the people, and promote the coordinated development of resource development and environmental protection. Establish a resource perspective that emphasizes conservation, intensive utilization, and recycling, strengthen conservation management throughout the entire process, promote a fundamental shift in resource utilization, accelerate the development of a green mining industry, and vigorously promote the development of an ecological civilization.

- Mutual benefit and win-win results, deepen international mining cooperation. Deepen international mining cooperation along the Belt and Road Initiative, strengthen overseas mineral resource exploration and development, improve the quality and level of foreign investment, introduce advanced technology and management experience, actively participate in global mining governance, and promote the formation of a deeply integrated and mutually beneficial cooperation pattern.

Benefiting the people and sharing the fruits of mining development. In accordance with the overall national poverty alleviation plan, support the development and utilization of mineral resources in contiguous impoverished areas, accelerating the transformation of resource advantages into economic development advantages. Improve the revenue distribution mechanism, promote the sharing of resource development benefits among the central government, local governments, enterprises, and the people in mining areas, and serve regional development and improve people's livelihoods.

Section 3 Main Objectives

By 2020, a safe, stable and economical resource guarantee system will be basically established, a green mining development model that is economical, efficient, environmentally friendly and harmonious between mines and land will be basically formed, and a unified, open, competitive, orderly and dynamic modern mining market system will be basically established, significantly improving the quality and efficiency of mining development and shaping a new pattern of resource security and mining development.

The foundation for domestic resource security has been further consolidated. Breakthrough mineral exploration efforts have yielded new results, establishing a number of strategic succession zones for important mineral resources. Reserves of key mineral resources have maintained steady growth, with efforts aimed at discovering 500–800 million-ton oil fields and 500–1000 billion cubic meter gas fields, as well as discovering and evaluating 300–400 large and medium-sized mineral deposits. The oil reserve-to-production ratio remains above 12, and the natural gas reserve-to-production ratio reaches 30.

The supply of mineral resources remained secure and stable. 103 energy resource bases were established, and 267 nationally planned mining areas were designated. This strengthened the domestic supply of strategic minerals such as iron, copper, bauxite, and potash. Twenty-eight mining areas of significant value to the national economy were designated, and the protection and reserve of key minerals was strengthened.

Significant improvements have been made in resource and environmental protection and rational utilization. The layout of development and utilization has been further optimized, and the scale and intensification of mines have significantly increased, with the proportion of large and medium-sized mines exceeding 12%. Conservation and comprehensive utilization have significantly improved, with the output rate of major mineral resources increasing by 15%. A new pattern of green mining development has been essentially established. The environmental impact of mineral resource development has been effectively controlled, ensuring no degradation or decline in the ecological environment in development areas. The geological environment of mines has been effectively protected and promptly managed, with the restoration of the geological environment of 500,000 hectares of historical mining sites completed.

Column 1: Main Indicators of Mineral Resource Exploration			
Serial number	Mineral Type	Newly identified resource reserves	
		unit	2016–2020
1	oil	100 million tons	50
2	natural gas	trillion cubic meters	3

3	shale gas	trillion cubic meters	1
4	coal	100 million tons	1000
5	Coalbed methane	100 million cubic meters	4200
6	uranium mines	Tons of uranium	XX
7	iron ore	100 million tons of ore	80
8	manganese ore	100 million tons of ore	9
9	copper mines	10,000 tons of metal	800
10	Bauxite	100 million tons of ore	6
11	nickel ore	10,000 tons of metal	80
12	Lead Ore	10,000 tons of metal	2000
13	zinc mines	10,000 tons of metal	3000
14	Tungsten Ore	WO <sub>3</sub> ( 65% ) 10,000 tons	100
15	tin mines	10,000 tons of metal	70
16	antimony ore	10,000 tons of metal	80
17	gold mine	Tons of metal	3000
18	lithium ore	Li <sub>200,000</sub> tons	60
19	graphite	10,000 tons of minerals	600
20	Phosphate rock	100 million tons of ore	8
twenty one	potassium salt	KCl billion tons	1

Note: The above indicators are all forecast indicators. Oil, natural gas, shale gas and coalbed methane are newly discovered geological reserves.

-- International cooperation in the mining industry will create a new era. Integrating infrastructure development and international capacity cooperation, we will collaborate to promote the exploration and development of large-scale mineral deposits, such as oil, iron, copper, bauxite, and potash, both domestically and internationally. We will cultivate a group of large, internationally competitive multinational mining groups, improve international mining cooperation platforms and service guarantee mechanisms, and initially establish a global mining cooperation system that is compatible with my country's economic development.

The mining industry's innovative development capabilities have been comprehensively enhanced. The oil and gas exploration and development market has been liberalized in an orderly manner, the scope of competitive mining rights transfers has been further expanded, mining rights approval authority has been significantly decentralized, a national mineral resource royalty system has been established, and a credit constraint and regulatory system for mining rights holders has been improved. Modern market systems, including the mining capital market and the mining rights trading market, have been further improved. The legal and regulatory framework for mineral resources has been further refined, and significant progress has been made in modernizing the mineral resource governance system and capacity. New breakthroughs have been achieved in scientific and technological innovation in resource development and utilization.

Vision 2025:

A stable and open resource security guarantee system has been fully established, a development pattern in which resource development is coordinated with economic and social development and ecological and environmental protection has basically been formed, resource protection has become more effective, the mining industry has achieved comprehensive transformation and upgrading and green development, a modern mining market system has been fully established, and the ability to participate in global mining governance has been significantly enhanced.

Column 2: Key Indicators for the Development, Utilization and Protection of Mineral Resources			
index	u ni t	2020	property

Annual mining volume of resources	crude	1 0 0 m ill io n to n s	2	Anticipation
	natural gas	1 0 0 m ill io n c u bi c m et er s	1700	
	shale gas	1 0 0 m ill io n c u bi c m et er s	300	
	raw coal	1 0 0 m ill io n to n s	39	



Coalbed methane	1 0 0 m ill io n c u bi c m et er s	160
iron ore	1 0 0 m ill io n to n s of ore	12
manganese ore	1 0, 0 0 0 to n s of ore	3000
copper mines	1 0, 0 0 0 to n s of m et al	260





Bauxite	1 0, 0 0 0 0 to n s of or e	7300
nickel ore	1 0, 0 0 0 0 to n s of m et al	16
Lead Ore	1 0, 0 0 0 0 to n s of m et al	350
zinc mines	1 0, 0 0 0 0 to n s of m et al	625



Molybdenum ore	E q u i v a l e n t t o 4 5 % o f p u r e m o l y b d e n u m	31
antimony ore	1 0, 0 0 0 0 t o n s o f m e t a l	16
tin mines	1 0, 0 0 0 0 t o n s o f m e t a l	15
gold mine	G o l d T o n	550



	Crystalline graphite	1000 tons of minerals	95	
	Phosphate rock	100 million tons of ore	1.5	
	Tungsten Ore	WO <sub>3</sub> (65%)10,000 tons	12	Constraint
	rare earths	tons of REO	14	



Mining transformation and green development	Resource protection and reserves	D e p a r t m e n t	28	Anticipation
	Proportion of large and medium-sized mines	%	>12	
	Increase in mineral resource output rate	%	15	
	Historical mining geology Environmental governance and restoration area	1 0, 0 0 0 0 h e c t a r e s	50	Constraint
Notes : 1. Mineral resource output rate refers to the economic output per unit input of physical quantities of major mineral resources. It reflects the efficiency with which mineral resources are used in economic activities. Mineral resource output rate = Gross Regional Product ( GDP at constant prices) / Consumption of major mineral resources. Major minerals include 11 types : petroleum, coal, natural gas, iron, copper, aluminum, lead, zinc, nickel, phosphorus, and limestone . 2. Coalbed methane (CBM) index refers to the utilization of CBM (coal mine gas).				

### Chapter 3: Adhere to innovative development to enhance new driving forces for mining development

We will focus on deepening the reform of the exploration and development system and mechanism, improving the modern mining market system, implementing the innovation-driven development strategy in depth, and enhancing the vitality and momentum of mining development.

#### Section 1 Comprehensively Deepen Reform of Mineral Resource Management

##### 1. Opening up the oil, gas, and uranium exploration and development markets

In accordance with the overall plan for oil and gas system reform and adhering to the principle of "liberalizing the market, revitalizing blocks, stimulating vitality, and strengthening supervision," we will accelerate the implementation of reform pilot programs in Xinjiang and the summary and dissemination of their experiences. We will steadily advance the reform of the oil and gas exploration and production system and mechanism, gradually open up the upstream exploration and development market, introduce social capital, and accelerate the exploration and development process. We will improve the exit mechanism for exploration blocks, promote the transfer of blocks, establish an orderly exploration and development market, and unleash exploration potential. We will improve the mechanism for the disclosure and sharing of oil and gas geological data, establish a dynamic oil and gas resource supervision information platform, and publicly disclose mining rights information, exploration progress, and exploration and development plans. We will explore the establishment of a new oil and gas resource management system with first-level registration and coordinated supervision between the central and local governments. We will strengthen the national oil and gas inspector system and promote the regularization and standardization of inspection work.

Intensify reform of the uranium exploration and development system. Following the principles of socialized exploration, market-based mining rights, diversified investment, and specialized mining, intensify reform of the uranium exploration and development system. Open up the uranium exploration and development market in an orderly manner, actively guide social capital into the uranium exploration sector, and establish a uranium development system with principal responsibility and multi-party investment cooperation through joint ventures, equity investment, and agreements, accelerating the progress of uranium exploration and development. Promote cooperative and comprehensive exploration in areas where oil, coal, and uranium resources overlap, and encourage the adoption of coal-uranium and oil-uranium exploration and cooperative development models to achieve comprehensive resource development and utilization.

##### II. Expanding the scope of competitive transfer of mining rights

Adhere to a market-oriented competitive approach and establish a mining rights transfer method that conforms to the requirements of the market economy and the laws of the mining industry. Explore expanding the scope of competitive mining rights transfers, further promote the transfer of prospecting and mining rights through bidding, auction, and listing, focus on breaking down institutional barriers, fully mobilize the enthusiasm of various market players, and attract social capital and venture capital. Strictly limit and regulate non-competitive transfers, strictly control transfers through agreements, and standardize the transfer of prospecting rights to mining rights and the transfer of prospecting rights fully funded by the government. Incorporate the competitive aspects of mining rights transfers into public resource trading platforms, promote the development of a unified national mining rights trading platform, establish a nationwide networked mining rights transfer information disclosure and inquiry system, and further improve mining rights trading rules.

3. Promote the decentralization of mining rights approval authority

Continue to streamline administration and delegate power, deepening the reform of the mining rights approval system. In accordance with the requirements of the State Council, adjust and delegate authority for mining rights approval, issue relevant supporting documents, and refine management measures for delegated authority. Promote the authority list system, simplify approval procedures, optimize approval processes, and promote the refinement, standardization, and transparency of mining rights approval management, standardizing and regulating mining rights approval and registration procedures nationwide. Innovate administrative approval service methods, expand the scope of online approval, and increase transparency regarding the transfer of mining rights. Further upgrade and improve the unified mining rights numbering system, strengthen online supervision, and deter irregularities. Effectively clean up intermediary services for mining-related administrative approvals, reduce administrative approval costs, and alleviate the burden on businesses.

IV. Promote the reform of the mineral resource tax and fee system

Promote reform of the system for paid use of mineral resources. Clarify the property rights relationships among owners, investors, and users in paid acquisition, occupation, and exploitation, establish a national mineral resource royalty system, improve relevant supporting systems, and safeguard the rights and interests of state owners. Adjust the royalties for prospecting and mining rights, establish a dynamic adjustment mechanism, and improve the minimum exploration investment system. Implement value-based tax reform for mineral resource taxes and rationally determine the resource tax rate. Comprehensively review fees and funds related to mineral resources and standardize collection practices. Strengthen the management of preferential mineral resource tax policies to improve the comprehensive utilization efficiency of resources. Establish an assessment mechanism to incorporate resource owner rights and ecological and environmental damage into the costs of developing and utilizing natural resources and their products.

V. Reforming the way mineral resources are supervised

Strengthen the establishment of a credit system and reform regulatory approaches. Fully implement a system for public disclosure of exploration and mining information by mining rights holders, establish a "blacklist" system for mining rights holders, and improve a mineral resource regulatory system that integrates public oversight, government spot checks, and the removal of untrustworthy entities. Strengthen the registration and management of mineral resource reserves, establish a resource reserve management system that is consistent with my country's national conditions and mutually recognized by international standards, and strengthen dynamic monitoring of resource reserves. Establish and improve a comprehensive regulatory platform for mineral resource exploration and development, conduct dynamic inspections and 24/7 remote sensing monitoring, strengthen law enforcement and supervision of unlicensed exploration and mining, and strengthen special inspections of wasteful resource and environmental damage.

VI. Strengthening macro-management of mineral resources

Formulate a catalog of strategic minerals. To safeguard national economic and national defense security and meet the development needs of strategic emerging industries, 24 minerals, including oil, natural gas, coal, rare earth elements, and crystalline graphite, have been included in the catalog of strategic minerals. These minerals are key targets for macroeconomic regulation and supervision of mineral resources. Furthermore, guidance and differentiated management will be strengthened in resource allocation, fiscal investment, major projects, and mining land use, to improve resource security and development and utilization.

Column 3: Catalogue of Strategic Minerals ( 24 types)	
Energy Minerals	Oil, natural gas, shale gas, coal, coalbed methane, uranium
Metal Minerals	Iron, chromium, copper, aluminum, gold, nickel, tungsten, tin, molybdenum, antimony, cobalt, lithium, rare earth, zirconium
Non-metallic minerals	Phosphorus, potassium salt, crystalline graphite, fluorite

Establish a strategic mineral monitoring and early warning mechanism. Strengthen monitoring and early warning capabilities, establish early warning indicators, safety thresholds, and comprehensive evaluation models, conduct systematic analysis of domestic and international mineral supply and demand and resource situations, and strengthen resource security early warning capabilities to respond to major international conflicts. Establish a

strategic mineral monitoring and early warning reporting system to support government decision-making, guide industry development, strengthen policy reserves, establish risk response plans, and enhance risk prevention and control capabilities.

Column 4: Mineral Resources Informatization and Safety Early Warning Project
Conduct surveys and assessments on the level of mineral resource development and utilization, strengthen strategic situation analysis of mineral resources, build a strategic mineral security supply monitoring, early warning and analysis system, build core databases such as mining rights, resource reserves, development and utilization, and planning, and regularly publish key indicators of mineral resource development and utilization, security supply research results, and special information products.

Improve the macro-control policy system for mineral resources. Cooperate in the revision of the Mineral Resources Law and its supporting regulations. Strengthen research on the national mineral resource security strategy. Strengthen mineral resource planning and control, and strictly implement zoning management, total quantity control, and mining access systems. Focus on promoting supply-side structural reform in the mining industry and foster new momentum for industrial development. Implement differentiated management of mineral types and regions, and encourage exploration and development policies for scarce minerals. For traditional advantageous minerals, rationally regulate the total amount of development and utilization. For minerals with overcapacity, strictly control new production capacity, resolutely eliminate outdated production capacity, and orderly withdraw excess production capacity. For minerals in strategic emerging industries, ensure resource supply and strengthen high-end applications.

VII. Improve the modern mining market system

In accordance with the requirements of clear property rights, comprehensive rules, effective regulation, and standardized operations, we will establish and improve a tangible market for mining rights, accelerate the development of mining capital markets and intermediary service markets, and form a unified, open, and orderly competitive mining market system. We will support the reform of state-owned mining enterprises, actively and steadily develop mixed-ownership enterprises, and cultivate competitive mining market entities. We will foster a futures market for resource-based products, develop trading instruments such as commodity options and commodity index futures, leverage the futures market's price discovery and risk management functions, and enhance its ability to serve the real economy.

Section 2: Innovative Mechanisms to Promote Strategic Actions for Mineral Exploration Breakthroughs

Deeply implement the strategic action plan for breakthroughs in mineral exploration. Geological exploration will be considered a crucial foundational task for ensuring domestic resource security, and it will be continuously and steadily strengthened. Exploration priorities will be adjusted and work arrangements optimized, with a focus on energy, scarce minerals, and minerals related to strategic emerging industries. 1:50,000 geological and mineral surveys will be deployed in under-explored areas of 16 oil and gas basins, such as the Ordos Basin, and in 26 key mineralization belts, including the East Kunlun Mountains, to clarify mineralization conditions, predict resource potential, and identify new prospecting targets. 297 key exploration areas will be designated, and various types of funding will be directed to increase prospecting efforts, leading to the discovery of a number of mineral deposits suitable for development and utilization. Basic surveys and evaluations of new areas, new strata, new areas, and new types of oil and gas resources will be strengthened. National resource potential assessments of coalbed methane, oil shale, oil sands, and coal-bearing minerals will be conducted to clarify resource bases and development and utilization conditions. Prioritize exploration for replacement resources in critically endangered mines with favorable geological conditions, high prospecting potential, and high market demand, and accelerate exploration in areas with dense mining concentrations and outside of established mines.

Improve policies and measures for breakthrough mineral exploration. Focus on building a market-oriented, diversified investment platform to encourage and guide social capital investment in geological prospecting. Support public-interest geological work, implement a system for public disclosure of information on government-funded projects, and serve and guide commercial mineral exploration. Reform the Central Geological Exploration Fund to address deficiencies in the mining capital market. Promote the establishment of a risk exploration capital market tailored to my country's national conditions, expanding financing channels for risk exploration and mining development.

Section 3: Vigorously promote the construction of energy resource bases

1. Build a national energy and resource base

Taking into account factors such as resource endowment, development and utilization conditions, environmental carrying capacity, and regional industrial layout, 103 energy and resource bases will be established as strategic core areas to ensure national resource security. These bases will be integrated into the national economic and social development plan and relevant industry development plans for overall planning and priority development. Key support and guarantees will be given in terms of productivity layout, infrastructure development, resource allocation, major project arrangements, and related industrial policies, vigorously promoting large-scale resource development and industrial cluster development. By 2020, the production capacity of large-scale coal



bases will reach over 95% of the national total, that of graphite and rare earth resource bases will exceed 80%, and that of tungsten, tin, antimony, phosphorus, and potash resource bases will reach approximately 50%.

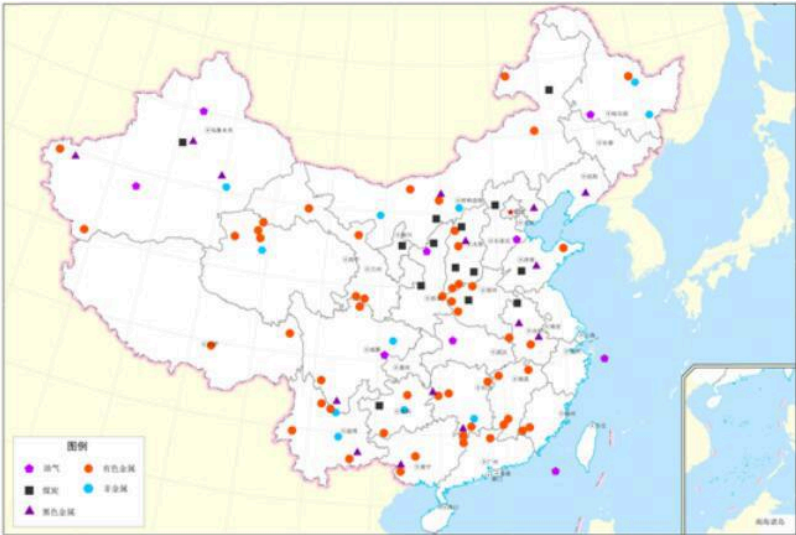


Figure 1 Schematic diagram of important energy resource bases across the country

II. Strengthening supervision of development and utilization of key mining areas

Focusing on strategic minerals, 267 nationally planned mining areas have been designated as key regulatory areas, creating new, modern demonstration zones for efficient resource development and utilization. These areas will implement unified planning, optimize layout, raise barriers to entry, and optimize resource allocation, promoting the large-scale development and intensive utilization of high-quality resources and supporting the development of energy and resource bases. Priority will be given to the allocation of mining rights and mining quotas for specific minerals subject to protective mining, such as those subject to total quantity control, to nationally planned mining areas. Twenty-eight mining areas of significant value to the national economy have been designated as key areas for reserve and protection. Priority will be given to strengthening the reserve and protection of specific minerals subject to protective mining, such as rare earths, minerals with severe overcapacity, and proven large, medium, and larger-scale mineral deposits within nature reserves. A multi-channel investment mechanism will be explored to support enhanced exploration of reserve mineral deposits, ensuring strict protection and regulation to prevent their overburdening or destruction. A dynamic adjustment mechanism will be established, and after rigorous evaluation and approval, these deposits will be transferred to nationally planned mining areas for unified planning and large-scale development.



Figure 2 Schematic diagram of nationally planned mining areas and mining areas of great value to the national economy

Section 4 Accelerating scientific and technological innovation in resource development and utilization

1. Build a geological and mineral technology innovation platform

We will advance the construction of major scientific infrastructure for the Deep Earth Observation and Experimental System, comprehensively utilize existing resources, and strengthen the capacity of scientific research

platforms in the field of mineral resources. We will strengthen the training of scientific and technological personnel in the field of mineral resources and establish a new type of think tank for mining development. We will strengthen the leading role of enterprises, encourage research institutes to collaborate with enterprises, establish a diversified system of scientific and technological investment, accelerate the transformation of scientific and technological achievements, and build a geological and mineral science and technology innovation platform that integrates government, industry, academia, research, and application. We will establish a joint promotion mechanism for major scientific and technological breakthroughs, demonstration and promotion of research achievements, and industrial development, to enhance the scientific and technological support capabilities for solving resource problems.

2. Innovative resource exploration and development technologies

Research and advance scientific drilling at depths of 10,000 meters, and strengthen research on major scientific and technological issues in deep geological prospecting. Expand cutting-edge technologies for space resource exploration at depths of 10,000 meters, develop a comprehensive three-dimensional exploration system for deep prospecting, establish comprehensive technical capabilities for exploration at depths of 3,000 meters and below, and for mining at depths of 2,000 meters and below. Reserve a portfolio of exploration technologies at depths of 5,000 meters and above, and expand oil and gas exploration capabilities to depths of 6,500–10,000 meters. Implement demonstration projects for deep prospecting in major oil and gas basins, the Jiaodong region, the middle and lower reaches of the Yangtze River, and the Nanling Mountains, and promote the industrialization and application of advanced technologies, processes, and equipment. Breakthroughs will be made in key technologies for deep-sea access, exploration, and development. Fundamental theoretical research and key technological breakthroughs will be intensified, including research on marine mineral resources, establishing a deep-sea geological survey, exploration theory, and technology system, and advancing research on the investigation, development, and utilization of seafloor resources such as cobalt-rich crusts, manganese nodules, and rare earth ooze. Vigorously develop Earth observation technology, advance the development of operational and scientific satellites for land and resources, and satellite application systems. Strengthen the ability to provide independent, continuous, and stable high-resolution satellite data, and enhance resource and environmental survey and monitoring capabilities. Following the principles of green development, conservation and intensive utilization, and intelligent development, we will promote the formation of a mining technology system encompassing refined and efficient mineral resource exploration, smart mining technology and equipment, ecological mining and resource conservation, green mining and smelting, key technologies for extracting rare and precious resources, coal quality improvement and comprehensive utilization, and the recycling of typical secondary resources. We will promote the transformation of advanced and mature technologies into standards, encourage social groups and enterprises to participate in standardization efforts, and strengthen research on standards in the mineral resource sector.

3. Vigorously promote the development of "Internet + Mining"

Build an e-commerce platform for the mining industry, innovate mining financial services, promote the organic integration of resources, capital, technology, equipment, and services, and form a multi-level market system and complete industrial chain that effectively connects upstream and downstream, traditional and online, online and offline, on-site and off-site, commodities and finance, and domestic and international markets. This will improve resource allocation efficiency and create new growth points for the mining economy. Strengthen industry standardization, accelerate the construction of smart mines, promote changes in corporate organizational structures and management models, and accelerate the transformation and upgrading of traditional mining.

Column 5: Major Scientific and Technological Innovation Projects
<div>(1) Deep-earth resource exploration and exploitation projects.</div> <div>We will conduct theoretical research on deep geological mineralization, develop exploration and development technology and equipment, and conduct deep-depth stereoscopic exploration and deep prospecting demonstrations. We will achieve breakthroughs in 3,000- meter deep-earth resource exploration technology and achieve 10,000-meter drilling capabilities. We will accelerate the development of a " Transparent Earth " technology system, implement three-dimensional transparency projects for key oil and gas basins and major mineral clusters, and establish a number of strategic deep-earth resource reserve bases.</div>
<div>(2) Deep-sea resource exploration and exploitation projects.</div> <div>Develop deep-sea oil, gas and hydrate exploration and development technology and equipment, promote ocean seabed mineral exploration and marine natural gas hydrate pilot projects, accelerate the construction of a " transparent ocean " technology system, and provide support for the development and utilization of deep-sea resources.</div>
<div>(3) Major Earth observation satellite projects.</div> <div>We will fully construct a constellation of three 2- meter /8- meter optical business satellites and one 5-meter optical business satellite, promote the construction of L -band differential interferometry SAR and</div>

high-resolution multi-mode integrated imaging scientific research satellites, form the basic capabilities of the high-resolution land and resources satellite observation system, and comprehensively promote the construction of the land and resources satellite business application system.

**Chapter 4: Adhere to coordinated development and optimize the pattern of mineral development and protection**

We will vigorously promote the adjustment of the structural layout of mineral resource development and utilization, strengthen supply-side structural reform, promote the coordination of resource development with regional development, industrial transformation, environmental protection, and resource protection, and strive to build a coordinated and orderly pattern of mineral development and protection.

**Section 1 Promoting the coordination of resource development and regional development**

**I. Optimize the regional layout of mineral resource exploration and development**

Implement the national overall regional development strategy and the major functional area strategy, and establish a spatial pattern characterized by complementary regional resource advantages, clear exploration and development positioning, and coordinated development of resources and the environment. Promote the coordination of mineral development and environmental protection in western China, prioritizing areas with superior resource conditions and high environmental carrying capacity. Strengthen exploration and development, orderly undertake industrial transfer from central and eastern China, and promote the transformation of resource advantages into economic advantages. Accelerate the transformation and upgrading of the mining industry in central, eastern, and northeastern China, promote the coordinated development of upstream and downstream resource industries, extend the industrial chain, and improve the overall benefits of resource development. Guide the orderly development of advantageous resources along the domestic routes of the Belt and Road Initiative. Promote interactive cooperation and complementary advantages in mineral resources along the upper, midstream and lower reaches of the Yangtze River Economic Belt. Rationally control the intensity of resource development in the Beijing-Tianjin-Hebei region, and accelerate the transformation, upgrading, and coordinated development of the mining industry.

**II. Accelerate the exploration and development of marine mineral resources**

We will implement the strategy of building a strong maritime nation, safeguard China's maritime rights and interests, vigorously strengthen basic marine geological surveys, accelerate the development of deep-sea resource exploration and exploitation technologies, actively promote offshore oil and gas exploration and development, and conduct natural gas hydrate resource exploration and commercial trial production. We will actively participate in comprehensive surveys of international seabed mineral resources, accelerate the exploration and development of ocean mineral resources, and continue comprehensive environmental surveys and resource potential assessments in the Antarctic and Arctic. We will coordinate the utilization of land and marine resources, orderly promote nearshore, offshore, and deep-sea resource development, and strive to give full play to the important role of the ocean in safeguarding resources and the environment.

**III. Strictly manage mineral resource planning and zoning**

Establish a unified, interconnected, functionally complementary, and mutually coordinated planning and zoning management system, clarify policy guidance, and optimize the spatial pattern of resource development. Fully implement the exploration, development, and protection work layout determined by the plan, focusing on survey and evaluation areas and key mining geological environment remediation areas, primarily as key areas for fiscal funding and policy support. Designate key exploration areas, and encourage and guide commercial exploration investment. Strengthen the regulatory role of planning functional zoning, strengthen supervision of mineral resource development and utilization in key mining areas, strictly prohibit and restrict the management of exploration and mining areas, clarify access conditions for exploration and mining, and strictly control the number of mining rights and the scale of mining.

**IV. Implementing the Zoning System for Mining Rights**

Planning at all levels should implement mining rights zoning as required to optimize mine layout. In principle, each exploration and mining planning block should be designated as a single entity. The fragmentation of mineral deposits or the division and transfer of land is strictly prohibited. For high-risk minerals, exploration planning blocks should not be designated in principle. Mining planning blocks should be designated for minerals that have reached a detailed exploration level (including detailed exploration). For low-risk minerals, exploration and mining planning blocks should be designated based on resource endowment and geological structural conditions. For non-risk minerals such as sand, gravel, and clay, concentrated and alternative areas should be designated. Mining planning blocks may also be designated based on management needs. Access conditions and mine geological environment remediation and restoration measures should be clearly defined, and mining planning blocks should be implemented for compensation.



## Section 2 Promoting the coordination of resource development and industrial development

### I. Optimizing the layout and structure of energy and mineral development and utilization

Accelerate the exploration and development of clean and efficient energy minerals, control the total amount of coal resource mining, vigorously promote green mining and clean utilization, and promote the construction of a clean, low-carbon, safe and efficient energy mineral supply system.

(1) Stabilize domestic oil supply. Strengthen the development of mature oil fields in the east, increase oil and gas development efforts in central and western China, and accelerate the increase of offshore oil reserves and production, striving to maintain annual oil production at around 200 million tons. In the eastern region, with a focus on the Songliao and Bohai Bay basins, strengthen refined exploration and development, actively develop advanced oil recovery technologies, increase reserves and tap potential, and strive to slow the decline in production from mature oil fields. In the western region, with a focus on basins such as the Tarim, Ordos, and Junggar, explore high-quality resource reserves, increase reserves and stabilize production, and strive to increase production. Strengthen the Bohai Sea, expand the South China Sea, accelerate the East China Sea, explore the Yellow Sea and other waters, accelerate offshore oil exploration and development, maintain sustained and stable production from mature oil fields, accelerate production capacity development in new areas, and significantly increase offshore oil production.

(2) Vigorously develop natural gas. Expand western China, strengthen central China, and develop offshore areas, and intensify natural gas exploration and development efforts. Focus on the Tarim, Qaidam, Ordos, and Sichuan Basins on land, and the South China Sea in offshore areas. Strive to achieve major breakthroughs, maintain high growth in resource reserves and production, and strengthen the foundation for natural gas supply. Strengthen scientific and technological research in three key areas: low-grade natural gas in the west, deep-seated natural gas in the east, and deepwater natural gas in offshore areas, striving to achieve large-scale production.

(3) Accelerate the structural adjustment, transformation, and upgrading of the coal industry. In accordance with the requirements of strictly controlling growth, optimizing existing capacity, and promoting clean utilization, we will actively and steadily resolve overcapacity while integrating structural adjustment, transformation, and upgrading to promote the healthy development of the coal industry. We will restrict coal resource development in the eastern region, control development in the central and northeastern regions, and optimize development in the western region. We will promote green mining and transformation in large coal bases such as Shendong and Shaanxi. During the planning period, no new coal mines with an annual output of less than 300,000 tons or coal and gas outburst mines with an annual output of less than 900,000 tons will be built. Coal mines with an annual output of 150,000 tons or less that have experienced major or higher-level safety accidents, and coal mines with an annual output of less than 300,000 tons that have experienced major or higher-level safety accidents, will be phased out within a specified period. Coal mines with an annual output of less than 300,000 tons will be encouraged to accelerate their exit. Mergers, reorganizations, and resource consolidation among coal enterprises will be encouraged, fostering large coal enterprise groups. By the end of 2020, the number of coal mines will be reduced to 6,000. We will actively promote the shift from prioritizing coal resources as a fuel to balancing them as both fuel and raw materials, promoting coal grading, quality differentiation, and clean utilization. Increase the proportion of coal washing and strengthen the comprehensive utilization of resources such as coal gangue and mine water.

(4) Vigorously promote uranium exploration and development. Focusing on the Ordos, Ili, Erlian, Songliao, Tuha, and Bayingebi basins, intensify exploration efforts for sandstone-type uranium deposits, aiming to discover 20–25 new uranium deposits by 2020. Focusing on the Xiangshan Basin in Jiangxi, the Zhuguangshan Basin in Guangdong, and the Miaoershan Basin in Guangxi, strengthen exploration in deep and peripheral areas to consolidate the hard-rock uranium resource base. Designate a number of nationally planned uranium mining areas in areas such as the southern edge of the Ili Basin in Xinjiang, the northern Ordos Basin, the southwestern Songliao Basin, and the Xiangshan and southern Zhuguangshan Basins. Prioritize the development of uranium mining bases in the Ili, Ordos, and Tongliao regions, and promote the shift of national uranium production capacity toward sandstone-type uranium deposits in the north.

(5) Accelerate the development and utilization of coalbed methane. Continue to implement the central government subsidy policy for the development and utilization of coalbed methane (coal mine gas), improve and perfect the coordinated development mechanism for coalbed methane and coal, promote large-scale development in 12 nationally planned coalbed methane mining areas, including Baode, Shanxi, and build coalbed methane industrialization bases in the Qinshui Basin and the eastern edge of the Ordos Basin. Coordinate the development schedule of coal and coalbed methane, ensuring the connection between gas and coal mining operations. In areas where wells and coal mining are planned within five years of the coal mining plan, prioritize coal resource development and effectively utilize coalbed methane resources. In areas where wells and coal mining are planned after five years, prioritize gas mining over coal mining. Newly established coalbed methane or coal prospecting rights must undergo comprehensive exploration, evaluation, and recordation of reserves for both coal and coalbed methane resources. Support coal mining rights holders in changing and adding mineral types, and promote comprehensive development of coalbed methane.



(6) Promote large-scale development and utilization of shale gas. Strengthen shale gas survey, evaluation, and exploration to acquire high-quality, large-scale reserves. Conduct shale gas exploration and development demonstrations in areas such as Changning–Weiyuan in Sichuan, Fuling in Chongqing, Zunyi–Tongren in Guizhou, Zhaotong in Yunnan, and Yan'an in Shaanxi. Develop key technologies and equipment for shale gas exploration and development that are suitable for my country's geological characteristics. Continue to implement shale gas development and utilization subsidy policies to promote low-cost, large-scale development. Strengthen environmental protection during shale gas development.

(7) Actively develop and utilize energy minerals such as oil shale. Strengthen oil shale and oil sands exploration in the Songliao, Ordos, Qaidam, and Junggar basins. Conduct demonstration projects for oil shale development and utilization in areas such as Fushun, Liaoning; Huadian and Fuyu, Jilin; Longkou, Shandong; Yaojie, Gansu; and Jimsar, Xinjiang. Increase efforts to tackle key technical challenges in natural gas hydrate exploration and development, cultivate core technologies with independent intellectual property rights, and accelerate the implementation of natural gas hydrate pilot production projects in the northern South China Sea to overcome technical bottlenecks in safe production.

(8) Develop geothermal resources according to local conditions. Conduct assessments of geothermal water resources, hot dry rocks, and shallow geothermal energy potential. Promote geothermal resource surveys and the development and utilization of demonstration projects in the southeastern coastal areas, the Beijing–Tianjin–Hebei region, and the southwest, and promote research and demonstration of cascade utilization and recycling technologies. Strengthen monitoring and management of geothermal resource development and utilization, and improve standards and regulations. Implement supportive policies, innovate development and utilization models, and increase the proportion of geothermal energy utilization.



II. Ensuring the Effective Supply of Important Metal Minerals

Focusing on iron, manganese, copper, aluminum, nickel, lead, zinc, tungsten, tin, antimony, gold and silver, we will concentrate on building large and medium-sized mines with market competitiveness in areas with good resource conditions, strong environmental carrying capacity, complete supporting facilities and obvious location advantages to stabilize the domestic effective supply level.

(1) Stabilize domestic iron ore supply capacity. In line with the layout of the steel industry, focus on developing iron ore bases in Anben, Jidong, Panxi, Baobai, Xinzhou–Lüliang, and Ningwu–Lucong, guiding the concentration of regional resources in large mining groups. Build a number of large mines, such as those in Xi'anshan and Macheng. Promote fair taxation, reduce the burden on iron ore companies, and enhance the competitiveness of domestic iron ore companies. Strengthen the exploration and development of manganese ore resources in areas such as southwestern Guangxi and Yongzhou, Hunan. Appropriately control the development of mines deeper than one kilometer and small-scale, low-grade iron mines. No new open-pit iron mines with an annual output of less than 200,000 tons, underground iron mines with an annual output of less than 100,000 tons, or manganese mines with an annual output of less than 50,000 tons will be built.

(2) Moderately expand the scale of development of copper, aluminum, nickel, and other minerals. Consolidate existing copper and nickel production bases in the middle and lower reaches of the Yangtze River, the Unugtu Mountains in Inner Mongolia, Jinchuan in Gansu, and Altay in Xinjiang, develop copper industry clusters, stabilize copper production capacity at 600,000–700,000 tons/year, and maintain nickel production capacity at 90,000–100,000 tons/year. Build new copper and nickel bases, such as the Yemaquan–Xiarihamu base in Qinghai, and strive to increase copper supply capacity by 80,000–100,000 tons/year. Encourage large mining companies to participate in the development and integration of bauxite bases in central Shanxi, northwestern Henan, southwestern Guangxi, and central and northern Guizhou, striving to establish a new bauxite supply capacity of 20–30 million tons/year.

(3) Appropriately control the intensity of lead, zinc, and molybdenum mineral development and utilization. Focusing on southern Xinjiang, southern Gansu, southern Hunan and northern Guangdong, central Yunnan and southern Sichuan, and southwestern Yunnan, promote resource integration and encourage the concentration of resources in key enterprises. Raise the scale and environmental protection thresholds for lead, zinc, and other mineral mining operations. Strengthen prospecting and resource reserve upgrades around and deep within existing mines, striving to limit lead and zinc mining capacity to 3.5 million tons/year and 6.25 million tons/year, respectively, by 2020. Develop molybdenum mining bases in western Henan, Weinan, Shaanxi, and Yichun, Heilongjiang, control new production capacity, and promote orderly development and utilization.

(4) Protectively develop tungsten, tin, and antimony. Consolidate tungsten resource bases in southern Jiangxi and Chenzhou, Hunan, stabilize mining scale, and rationally utilize associated tungsten, low-grade tungsten, and tungsten-containing tailings. Stabilize the development pattern of tin and antimony, focusing on increasing the mining and supply capacity of resource bases such as southeastern Yunnan, Hечи, Guangxi, and Lengshuijiang, Anhua, Hunan. Strengthen the management and protection of antimony resources in southern and northern Tibet.

(5) Encourage the exploration and development of precious metal minerals such as gold and silver. Strengthen precious metal mineral exploration, develop resource bases such as those in Zhaoyuan and Laizhou, Shandong Province, further improve mining standards and production levels in areas such as safety, environmental protection, energy efficiency, and technology, and stabilize the domestic supply of gold, silver, and other precious metals. Encourage enterprises to engage in mergers, reorganizations, and resource integration in accordance with

market principles to form a group of large-scale gold enterprise groups with core competitiveness. No new gold mines with underground mining capacity below 30,000 tons or open-pit mining capacity below 60,000 tons will be built.

III. Promote the rational development and utilization of non-metallic minerals

Stabilize the supply of key agricultural mineral resources, such as phosphorus, sulfur, and potassium, to support food security strategies. Strengthen the protection and deep processing of key functional non-metallic minerals, such as bentonite, to open up new areas for mineral resource utilization. Tighten the management of non-metallic minerals, such as sand, gravel, clay, and building stone, and regulate their development.

(1) Ensure the supply of phosphate, sulfur, and potassium minerals. Build phosphate resource bases in central Yunnan, Kaiyang-Wengfu in Guizhou, and Baotou in Yixing, Hubei. Develop advanced mining and processing technologies, strengthen the utilization of medium- and low-grade ores, maintain total phosphate rock mining at approximately 150 million tons per year, and ensure the supply of phosphate and compound fertilizers. Consolidate the potash bases in Qarhan, Qinghai, and Lop Nur in Xinjiang, maintaining a domestic self-sufficiency rate of 55%-60%. Strengthen comprehensive oil and potash exploration in areas such as the Ordos Basin. Encourage the comprehensive development and utilization of solid potash and high-pressure brine, and improve the comprehensive recovery of strontium, lithium, boron, and sodium. Moderately control potash mining intensity and new production capacity to extend the sustainable supply of potash. Strengthen the comprehensive recovery of associated sulfur and sulfur in oil and gas, maintaining annual production at 18 million tons.

(2) Promote the efficient utilization of important functional non-metallic minerals. Conduct surveys and assessments of important functional non-metallic minerals, identify resource reserves, and establish a number of demonstration bases for the development and utilization of key non-metallic minerals. Focusing on high-quality clay resources such as bentonite in Jianping, Liaoning, Xiazijie, Xinjiang, and Chifeng, Inner Mongolia; attapulgite clay in Xuyi, Jiangsu, Mingguang, Anhui, and Linze, Gansu; diatomaceous earth in Linjiang and Changbai, Jilin; and sepiolite in Xiangtan, Hunan, strengthen guidance and supervision to promote the rational development and utilization of resources. Encourage the development of high-end environmentally friendly adsorbent materials, offshore drilling mud materials, and pharmaceutical excipients. Encourage the large-scale development and green development of minerals such as fluorite, boron ore, kaolin, talc, barite, and wollastonite, as well as the integrated development of upstream and downstream industries.

(3) Standardize the management of non-metallic minerals for building materials. Appropriately control the scale of development and utilization of limestone and glassy siliceous materials for cement. Optimize the spatial layout of sand, gravel, and clay development, and guide centralized, large-scale, and green mining. Explore the implementation of total control of sand, gravel, and clay mining rights within municipal and county boundaries, raise the entry threshold for large-scale and intensive mining, and strengthen responsibility and oversight for mine geological environmental remediation and restoration. Improve the management methods for the transfer of sand, gravel, and clay mining rights, and strictly control the scope of transfer agreements.

IV. Ensuring the supply of minerals for strategic emerging industries

There are more than 50 kinds of minerals that play an important supporting and guaranteeing role in the development of my country's strategic emerging industries. We will focus on strengthening the rational development and effective protection of rare earth, rare earth, scattered, graphite, lithium and other minerals with good resource base, great market potential and international market competitiveness, so as to enhance the international competitiveness of high-end industries.

(1) Orderly development of rare earth resources. Strengthen unified planning and oversight of rare earth resource survey, evaluation, exploration, development, and utilization, optimize the pattern of rare earth development and protection, strengthen the management of nationally planned rare earth mining areas, and standardize the order of exploration and development. Develop six major rare earth resource bases, including those in Baotou, Inner Mongolia, Liangshan, Sichuan, and Ganzhou, Jiangxi, and consolidate the pattern of exploration, development, and resource allocation led by large rare earth enterprise groups.

(2) Ensure the supply of rare and dispersed metal resources. Increase financial support, improve geological surveys, and thoroughly identify the resources of rare and dispersed metals. Encourage comprehensive evaluation and exploration of rare and dispersed metals in mineralization belts such as the Sanjiang and Daxing'anling Mountains in the southwest, striving to discover new independent deposits of niobium, tantalum, zirconium, and hafnium. Improve comprehensive exploration techniques and policy systems, strengthen the comprehensive evaluation, development, and utilization of associated dispersed metal resources in minerals such as tungsten, tin, copper, lead, zinc, aluminum, and coal, and achieve tiered recovery of useful components. Strengthen the investigation and evaluation of rare and dispersed metals in tailings ponds, and encourage the comprehensive recovery of dispersed elements from wastes such as mine tailings, coal gangue, and smelting slag.

(3) Encourage the development and utilization of lithium energy and metal minerals. Strengthen the evaluation of lithium resources in salt lakes such as Chaerhan in Qinghai and Zabuye in Tibet, and achieve breakthroughs in key technologies for extracting lithium from salt lake brines. Promote the exploration and development of spodumene mines in Ganzi, Sichuan, the Altay lithium mines in Xinjiang, and the lepidolite mines in Yichun, Jiangxi. Designate nationally planned mining areas, develop new lithium mining energy resource bases such as Jijiaka in





Sichuan, and strengthen the protection and rational utilization of lithium resources in northern Xinjiang, western Sichuan, and Wuyishan.

(4) Strengthen the protection and rational utilization of high-quality graphite resources. Complete a national graphite resource assessment, designate a number of nationally planned mining areas, and strengthen the rational development, utilization, and effective protection of graphite resources. Strengthen the reassessment of high-quality graphite resources in areas such as Hegang and Jixi in Heilongjiang Province, Xinghe and Alxa League in Inner Mongolia, and Bazhong in Sichuan Province, and establish a number of graphite resource bases. Encourage the efficient development and high-quality utilization of graphite resources, ensuring the coordinated development of upstream resource development with downstream industries such as high-end new energy anode materials, graphene materials, oil spill protection materials, silicon-infiltrated graphite, and biopharmaceutical materials.

**Section 3 Promoting the coordination of resource development and environmental protection**

**1. Strengthening source control of mineral development**

Strictly control the impact of mining activities on the ecological environment in accordance with the law. Adhere to scientific planning and demonstration, and improve access conditions for mineral exploration, mining, and processing. Restrict the mining of high-sulfur, high-ash, high-arsenic, and high-fluorine coal and wetland peat, as well as heavy sand minerals such as gold and iron. Prohibit the mining of blue asbestos and clay for bricks and tiles on arable land. No new mercury mines will be built, and mercury mining will be gradually halted. Strictly control the layout of sand, gravel, and clay mining to prevent excessive mining and environmental damage. Strictly control the mining of sea sand (gravel) and river sand (gravel), and reasonably determine the scope, mining period, and mining volume. Carry out planning environmental impact assessments in accordance with laws and regulations, strengthen interaction and coordination with planning schemes, and strengthen source prevention of environmental problems.

**II. Strictly manage mineral development in all types of protected areas**

Fully implement the main functional area planning and ecological protection requirements, and strictly prohibit development activities that are inconsistent with the functional positioning within nature reserves. In areas such as national geological parks, strict access management will be implemented in accordance with the law. Existing mineral resource exploration and development projects in various protected areas will be comprehensively cleaned up. Local governments will classify and handle them based on their circumstances, research and formulate exit compensation plans, and, on the premise of safeguarding the legitimate rights and interests of mining rights holders, carry out orderly exit in accordance with the law, promptly restore the mining area environment, and reclaim damaged land. The very few national strategic mineral development projects that must be retained will be approved according to procedures and implemented a list-based management system with clear resource and environmental protection requirements and measures, and strict supervision.

**3. Strengthen environmental supervision of mining production processes**

Strengthen environmental protection during the development of mineral resources to minimize or avoid mining environmental problems caused by mineral development. Establish a four-level dynamic geological environment monitoring system at the national, provincial, municipal, and county levels to strengthen environmental impact monitoring throughout the entire mining production process. Strengthen supervision and inspection of mining rights holders' fulfillment of their obligations regarding geological environmental protection, management, and restoration of mines. For those who cause major environmental impacts, mining will be banned or restricted for a specified period of time, and the impacts will be eliminated promptly. Those who refuse to fulfill their management and restoration tasks will be included in the list of abnormal business operations. Those with serious circumstances will be included in the list of serious violations and will be legally banned from the transfer of state-owned land and the approval of mining rights applications. Make the implementation of geological environmental protection and management and restoration responsibilities for mines an important part of public disclosure and spot checks of mining enterprises, strengthening social supervision and government regulation.

**IV. Strengthen supervision of abandoned mines and shafts**

Strictly control the subsequent treatment and disposal of abandoned mines to prevent abandoned tailings, construction facilities and other pollution of the soil, groundwater and other surrounding environments. For coal mines and other mine pits, the wells must be sealed and backfilled to prevent groundwater pollution, and ecological restoration must be carried out on abandoned mines.

**Section 4 Promoting the coordination of resource development and resource protection**

**1. Strengthening the protection of mineral resources**

Adhere to the principle of development while protecting, and protection while developing, and take effective measures to enhance resource protection capabilities. Establish a dynamic adjustment mechanism for protective mining of specific minerals, improve the control and management of annual total mining quotas, rationally regulate the scale of mining of tungsten, rare earths, and other minerals, and strictly prevent overexploitation. Strengthen the protection of scarce and special coals such as coking coal and fat coal, as well as strategic emerging industry minerals such as crystalline graphite and rare and dispersed metals. Clarify the entry conditions for efficient resource development and utilization to ensure high-quality and optimal use. Explore new models for the

exploration, protection, and rational utilization of advantageous resources in areas with concentrated resource distribution. Strictly restrict the development of minerals and tailings resources that cannot be rationally utilized under current technical and economic conditions to avoid resource damage and waste.

II. Explore the establishment of a mineral resource reserve system

Establish a strategic reserve system involving both the state and enterprises, integrating mineral products and mineral deposits, to ensure the security of mineral resource supply and intergenerational equity. Increase crude oil reserves, scientifically and rationally determine the scale, variety, and structure of national strategic reserves of non-ferrous metals, rare and precious metals, and improve the reserve system. Improve the reserve mechanism for mineral deposits, strengthen reserves of strategic minerals such as tungsten, rare earths, and crystalline graphite, and explore new mechanisms for integrating mining and storage. For the purpose of reserve, explore state-funded, market-based exploration within nature reserves, incorporating proven and newly discovered large and medium-sized mineral deposits into reserve management. Establish a dynamic adjustment mechanism for reserve mineral deposits, mobilizing them as needed based on economic and social development.

Column 6: Mineral Resource Protection and Reserve Project
Scientifically determine the types, scale, and layout of mineral reserves, implement a series of conservation and reserve projects, strengthen exploration of key minerals such as tungsten, tin, antimony, rare earth elements, lithium, crystalline graphite, chromium, special and scarce coal species, uranium, and key mineral deposits within nature reserves, increase exploration efforts, and incorporate the results into reserve management. Establish a regulatory system for the protection and reserve of mineral deposits to strengthen protection and oversight.



Section 5 Promoting the coordinated development of multiple mineral species in important basins

1. Optimizing the layout and timing of resource development in large basins

Strengthen research on resource endowment patterns in large sedimentary basins such as the Ordos and Sichuan Basins, and conduct comprehensive resource zoning. Based on the principles of spatial demarcation, temporal staggering, prioritizing urgent needs, comprehensive utilization, and reasonable avoidance, coordinate the layout, timing, scale, and structure of exploration and mining for oil, gas, uranium, coal, coalbed methane, rock salt, and bauxite, clarify access conditions, and promote the scientific, orderly, and integrated development of multiple resources.

II. Innovate mechanisms and models for coordinated development of multiple mineral species

Improve the mining rights management system and ensure that prospecting rights holders are fully responsible for comprehensive exploration and evaluation. Strengthen the overall coordination of the development of complex mining areas, promote cooperative mining among different mining rights holders, and innovate development and utilization models. Increase policy support and provide tax and fee reductions, in accordance with the law, to mining enterprises that have achieved significant results in comprehensive exploration and mining. Explore the establishment of a regular joint meeting system between central and local management departments and relevant mining rights holders to properly resolve relevant issues and promote the joint development of multiple mineral resources.

Section 6 Overall coordination of mineral development and urban and rural construction

I. Coordinated development of above-ground and underground resources

Coordinated planning and layout should be implemented to avoid urban development that suppresses mining or abandons cities due to mining, promoting the coordination of urban development and mineral resource development. In areas where conflicts between above- and underground resource development are prominent, the development of urban construction, transportation, and land use should take into account the mineral resource endowment and conduct thorough research to leave room for mineral development. Mineral resource planning should be well coordinated with urban construction plans and overall land use plans. Mineral resource mining within certain areas, such as key industrial areas, large-scale water conservancy projects, urban municipal engineering facilities, and along major linear projects, must be strictly managed in accordance with relevant regulations.

II. Strictly manage covered mineral resources

Improve the management system for buried mineral resources. Construction of infrastructure, buildings, building complexes, or urban development zones must not cover important mineral resources without scientific demonstration and approval from provincial-level or higher-level land and resources authorities. Construction projects that could cover important mineral resources must undergo rigorous demonstration and coordinated economic compensation to minimize or avoid covering important mineral resources. Effective measures must also be implemented to ensure the smooth progress of construction projects.

When setting up nature reserves, world cultural and natural heritage sites, forest parks, scenic spots, etc., which involve the identification of important mineral resources, the relevant competent authorities should fully coordinate with the land and resources authorities and conduct strict demonstration.

## Chapter 5: Adhere to green development and strengthen resource conservation, intensive use and recycling

Adhere to the priority of conservation, utilize mineral resources in a moderate and orderly manner, promote the formation of green development methods, comprehensively save and efficiently utilize resources, strengthen the management and restoration of mine geological environment and land reclamation in mining areas, and promote the transformation of economic development methods through the transformation of resource utilization methods.

### Section 1 Rationally Controlling the Total Amount of Energy Resource Development and Utilization

#### 1. Accelerate the development and utilization of clean energy

On the basis of stabilizing oil production, we will vigorously develop clean energy sources such as natural gas, coalbed methane, shale gas, and geothermal energy, accelerate clean energy supply, and optimize the structure of energy development and utilization. By 2020, we aim to produce 170 billion cubic meters of natural gas annually, utilize 16 billion cubic meters of coalbed methane (coal mine gas), strive to establish a shale gas production capacity of 30–50 billion cubic meters, and develop and utilize geothermal energy to the equivalent of 50 million tons of standard coal.

#### 2. Make every effort to resolve excess coal production capacity

During the planning period, for the first three years, approval of coal mining area demarcation will be suspended, except for projects meeting the reduction and replacement requirements. Applications for new coal mining rights and changes to production expansions will be strictly reviewed. No new mining rights or changes to production expansions will be accepted without project approval (capacity increase). In the second two years, new mining rights will be granted in an orderly manner, taking into account the effectiveness of overcapacity reduction measures and market conditions. Coal mines with depleted resources, poor geological conditions, severe environmental pollution, and chronic losses will be actively guided to orderly withdraw production capacity. Coal mines that lack safe production conditions and pose serious hazards such as coal and gas outbursts will be closed. Over a three–to–five year period, 500 million tons of production capacity will be withdrawn and 500 million tons of production capacity will be reduced and restructured. By 2020, national coal production will be controlled at 3.9 billion tons.

#### 3. Strictly control the mining of rare earth and other minerals

Continue to implement the total mining volume control system for tungsten and rare earth ores. Establish a dynamic balance mechanism between rare earth mining reserves consumed and newly added, and between withdrawn and newly added mining capacity. Accelerate the development of a traceability system to ensure traceability of rare earth mineral products throughout the entire process, from mining, smelting and separation, to circulation and export, ensuring traceability of sources, destinations, and accountability. By 2020, control the total mining volume of rare earth ores (rare earth oxides, REO) to 140,000 tons/year. Encourage the comprehensive utilization of associated tungsten ores and incorporate them into total mining volume management, with the total tungsten mining volume controlled at 120,000 tons/year. Restrict the development of overcapacity minerals, such as molybdenum, and rigorously demonstrate new production capacity.

### Section 2 Strict Mineral Development Access Conditions

#### 1. Implementing the minimum mining scale design standards for mines

Adhere to the principle that the designed mining scale of mines should be commensurate with the scale of resource reserves in the mining area. Strictly implement the minimum mining scale design standards for mines. The operation of large mines with smaller scales or multiple mines within a single mine is strictly prohibited. For small mines related to livelihood construction, provinces may define entry thresholds for designed mining scales based on actual conditions and implement strict regulatory management. Where the entry threshold for industrial policies is higher than the design standard, the industrial policy shall prevail.

#### II. Strictly control the efficiency of mineral resource development and utilization

Improve standards for mining recovery rates, mineral processing recovery rates, and comprehensive utilization rates for key mineral resources. Incorporate indicators for mineral resource conservation and comprehensive utilization into mining access requirements, and strictly prohibit the approval of mines that are energy–intensive, highly polluting, severely wasteful of resources, or lack comprehensive resource utilization designs. Regularly publish the "Catalogue of Technologies to be Encouraged, Restricted, and Eliminated for Mineral Resource Conservation and Comprehensive Utilization" to strengthen technical policy guidance.

#### III. Strengthening green exploration and development of mineral resources

Accelerate the development of green exploration and development standards and specifications, strengthen the research, development, and promotion of new technologies, methods, and processes for green exploration and mining, and actively promote green exploration and development. Develop a green mining system with pre–mining

planning, controllable mining, and post-mining recovery. Build a new model for green exploration and mining, promoting techniques such as backfill mining, water conservation mining, and subsidence reduction mining according to local conditions. Promote regional mine construction models, multi-well, one-field oilfield well factory models, and mining-along-reclamation-and-return-of-mined land models, and promote energy-saving and emission-reducing green mining and smelting technologies.

**Section 3 Strengthening the Conservation and Comprehensive Utilization of Mineral Resources**

**I. Improving the level of conservation and comprehensive utilization of mineral resources**

While encouraging the mining of major minerals, comprehensive mining and utilization of associated and low-grade minerals with industrial value will be pursued. The comprehensive utilization of coal and associated resources such as coalbed methane, bauxite, oil shale, and uranium will be encouraged. The scale of gangue utilization for power generation, building materials production, and underground backfill will be expanded, and the comprehensive utilization rate of gangue will be accelerated. The comprehensive utilization of associated ferrous and non-ferrous metal resources will be improved, and the resource utilization of tailings, solid waste, and wastewater will be strengthened. A system for surveying and assessing the level of mineral resource development and utilization will be established, and dynamic evaluation and monitoring will be implemented. Mining enterprises should adopt scientific mining methods and mineral processing technologies to reduce the generation and storage of mining solid wastes such as tailings, gangue, and waste rock. After storage facilities for mining solid wastes such as tailings, gangue, and waste rock are decommissioned, mining enterprises should close them in accordance with relevant national environmental protection regulations to prevent environmental pollution and ecological damage.



**II. Carry out key technology research and promotion demonstration for conservation and comprehensive utilization**

Build an industry-university-research platform, give full play to the leading role of mining enterprises in technological innovation, strengthen technological research, and achieve breakthroughs in key technologies such as efficient oil and natural gas extraction, safe and green mining of solid minerals, economic and rational utilization of low-grade ores, comprehensive utilization of complex co-existing minerals, recycling and utilization of tailings and solid waste, and innovative utilization of non-traditional and alternative resources. Implement a number of demonstration projects for the conservation and comprehensive utilization of mineral resources, support the transformation of mining enterprises' technologies, processes, and equipment, and accelerate their application and promotion.

Column 7: Demonstration Projects for Conservation and Comprehensive Utilization of Mineral Resources
Carry out technical research and comprehensive utilization of safe and efficient mining and dressing of coal, oil and gas, uranium, metal minerals, and important non-metallic minerals, strengthen technical research and promotion and application of efficient utilization of tailings and solid waste, clean utilization of coal, and efficient utilization of complex co-existing minerals.

**III. Improve the incentive and constraint mechanism for mineral resource conservation and comprehensive utilization**

Increase policy support, prioritizing land allocation to mining companies that utilize resources efficiently, employ advanced technologies, and implement comprehensive exploration and mining. Establish a system for publicizing information on efficient and comprehensive utilization by mining companies. Improve mechanisms and methods for access, incentives, supervision, and assessments, establishing a comprehensive system for mineral resource conservation and comprehensive utilization that covers the entire process from exploration, evaluation, development, to mine closure.

**Section 4: Vigorously promote mine geological environment management and mining area land reclamation**

**1. Accelerate the treatment of historical mining geological environmental issues**

Conduct a comprehensive survey of the current status of the mining geological environment to identify key issues and clarify remediation responsibilities. Build a new governance model featuring government leadership, policy support, social participation, development-oriented governance, and market-based operations, and intensify efforts to address historical mining geological environmental issues. Implement major projects to address prominent mining geological environmental issues that seriously impact human settlements, industrial and agricultural production, and urban development. Improve land and mining use policies and encourage diversified investment in addressing historical mining geological environmental issues.





Figure 3 Schematic diagram of key areas for mining geological environment management across the country

Column 8: Major Projects for the Restoration of the Geological Environment of Historical Mines
Accelerate the treatment of historical mining geological environmental problems such as closed mines, abandoned mines, policy-based closed mines and old state-owned mines, improve the ecological environment of mining areas and surrounding areas, and complete the treatment and restoration of an area of 500,000 hectares.

2. Actively carry out land reclamation in mining areas

Strictly implement the "Land Reclamation Regulations" and, in accordance with the principle of not incurring new debts and quickly repaying old ones, take effective measures to comprehensively promote the reclamation of damaged land in mining areas. Implement the principle of mining, protection, and reclamation simultaneously, ensuring the comprehensive reclamation of land damaged by new and under-construction mines. Actively carry out comprehensive management of mountains, rivers, forests, farmlands, and lakes, and increase the level of reclamation and utilization of historically damaged land. Following the principle of "investor benefits," gradually establish diversified investment and financing channels guided by government funds, and encourage all parties to engage in the reclamation of historically damaged land. Establish a land reclamation monitoring and post-evaluation system to strengthen supervision. Strengthen land reclamation research and the promotion and application of advanced technologies to comprehensively improve the level of land reclamation in mining areas.

III. Improve and perfect the long-term governance and recovery mechanism

Adhere to the principles of enterprise ownership, government supervision, and dedicated funds for designated purposes, and improve the deposit system for mine geological environment remediation and restoration. Enforce corporate responsibility, establish a mine geological environment accountability system and an environmental damage compensation and restoration system, and build a system of source prevention, process control, damage compensation, and accountability. Accelerate the legislative process for mine geological environment protection, and strictly enforce the primary responsibility of governments at all levels for mine geological environment supervision and the remediation of historical mine geological environment issues.

Section 5: Vigorously develop the circular economy in the mining sector

1. Promote the development of circular economy in the mining industry

Establish an evaluation index system to scientifically assess the status of circular economy development in mining enterprises. Increase support for circular economy development in the mineral resources sector, encourage mining enterprises to develop production processes that involve reduction, reuse, and resource utilization, innovate resource development and utilization models that are conducive to resource conservation and environmental protection, and establish exemplary models for circular economy development in mining enterprises.

II. Improving energy conservation and emission reduction levels in mining enterprises

Mining enterprises are encouraged to implement systematic energy conservation measures, reduce electricity, water, and media consumption, strengthen process energy management, phase out outdated equipment and mining processes, and encourage the use of energy-saving mining and processing equipment, equipment for the resource recovery and harmless disposal of three wastes, and equipment for the resource recovery and harmless disposal of intermediate materials from mineral processing. By 2020, we will strive to achieve "zero discharge" of mineral processing wastewater in key enterprises, achieve 100% harmless disposal of hazardous solid waste, and achieve internationally advanced energy conservation and emission reduction levels in mining enterprises.

3. Promote the recycling and utilization of renewable resources

Promote the recycling, large-scale utilization, and high-value utilization of urban minerals such as steel, nonferrous metals, and rare and precious metals. Conduct secondary resource classification, technology, and product recyclability evaluation. Encourage the quality-preserving and cascaded utilization of scrap metals, and the coordinated smelting of secondary resources and primary ores. Limit the construction of single recycled lead smelting projects to prevent secondary pollution during the metal recycling process. Strive to increase the proportion of metal recycling by 5–10%, alleviating bottlenecks in the utilization of primary mineral resources. Implement a raw material substitution strategy and encourage enterprises to increase the proportion of recycled metals.

Section 6 Accelerating the Development of Green Mining

1. Promote the construction of green mines and green mining development demonstration zones

Promote the construction of green mines at the national, provincial, municipal, and county levels, strengthen demonstration and leadership, and cultivate new driving forces for mining development. Following the principles of government organization, departmental collaboration, enterprise-led development, public participation, and joint advancement, mobilize local government initiatives, implement corporate responsibilities, and establish a number of green mining development demonstration zones. Promote green mining development from a focused and contiguous perspective, striving to create model zones characterized by a rational layout, intensive and efficient operations, excellent ecology, harmonious mine-land relations, and healthy regional economic development.

Column 9 Major Projects for the Construction of Green Mines and Green Mining Development Demonstration Zones
Build a number of national-level green mines, promote technological, industrial, and management model innovation, and lead the transformation and upgrading of traditional mining. Select regions with rich resources and strong management innovation capabilities, such as Huzhou, Zhejiang, Chengde, Hebei, Wuhu, Anhui, Peixian, Jiangsu, Ganzhou, Jiangxi, Chenzhou, Hunan, and Jinchang, Gansu, to establish more than 50 green mining development demonstration zones.

II. Establishing a long-term mechanism for green mining development

Establish and improve a green mine standard system tailored to specific regions and industries, incorporating green mine construction requirements throughout the entire process of mine planning, design, construction, operation, and closure. Improve supporting policies, providing preferential treatment for green mine construction in terms of land and mineral use. Reform and improve the mine environmental remediation and restoration deposit system to revitalize the use of funds. Provide support in areas such as the certification of high-tech enterprises. Fully implement preferential policies related to comprehensive resource utilization, mine environmental protection, energy conservation, and emission reduction, gradually establishing a policy framework conducive to the development of the green mining industry.

Chapter 6: Adhere to open development and promote win-win cooperation in global mining

Under the guidance of the Belt and Road Initiative, we will give full play to our complementary advantages and potential, strengthen cooperation in energy resources, strive to form a deeply integrated and mutually beneficial cooperation pattern, and create a new situation for the opening up of the mining industry.

Section 1 Comprehensively Promote “Belt and Road” Mining Cooperation

1. Promoting win-win cooperation in the mining industry along the Belt and Road

Implement the Belt and Road Initiative's basic geological survey and information service plan, strengthen comparative research on key metallogenic belts in neighboring countries, and conduct potential assessments of metallogenic belts such as the Ural-Mongolian and Pacific Rim. Leverage the supporting services of basic geological surveys to promote mining investment and cooperation between Chinese companies and countries along the Belt and Road. Focusing on minerals such as oil, gas, iron, copper, and aluminum, explore joint investment models encompassing mining, electricity, waterways, and ports, promote full-chain capacity cooperation across exploration, development, smelting, processing, and manufacturing, and develop a number of green and environmentally friendly demonstration projects in petrochemicals, steel, and nonferrous metals.

II. Building an international mining cooperation platform

We will successfully organize the China International Mining Conference and the China-ASEAN, China-Russia, and China-Mongolia Mining Cooperation Forums, improve the China-Central Asia Mining Cooperation Forum, and build an internationally influential platform for mining cooperation and exchange. We will strengthen foreign aid support for overseas geological and mineral resource surveys, establish regional multilateral and bilateral cooperation platforms such as those in the Belt and Road region, China-Latin America, and China-Africa, and strengthen dialogue and communication on energy resources. We will engage in practical cooperation with



multilateral institutions such as APEC, the World Bank, and the International Union of Geological Sciences, actively promoting policy dialogue, experience exchange, and capacity building. We will strengthen international scientific and technological cooperation in the mining industry, jointly establish joint laboratories in the field of geosciences, and increase training for geological and mineral resource management and technical personnel in countries along the Belt and Road.

**Section 2 Improving the level of opening up in the mining sector**

1. Create a favorable mining investment and business environment

We will fully implement the pre-establishment national treatment plus negative list management system to promote equal treatment and fair competition between domestic and foreign-funded enterprises. We will relax restrictions on foreign investment access and advance the development of informatization in foreign investment management. We will actively implement policies and measures to promote the liberalization and facilitation of mining trade and investment, and encourage foreign mineral resource exploration and development intermediaries, technology, and consulting service companies, etc. to operate in China.

II. Actively and effectively introduce foreign capital and advanced applicable technologies

We will continue to promote the simultaneous introduction of investment, technology, and talent, and improve policies and measures to encourage the introduction of advanced exploration and development technologies, management expertise, and high-quality talent. We will encourage foreign investment in new technology development and application projects, including shale gas and coalbed methane resource development, tailings utilization, mine environmental governance, and ecological restoration. We will also encourage the introduction of advanced and applicable energy-saving and consumption-reducing processes, technologies, and equipment.

3. Promoting connectivity in mining capital markets

Actively cultivate an open, transparent, and healthy capital market, providing multi-channel financing support throughout the entire mineral exploration, mine construction, and development cycle. Strengthen connectivity with overseas mining capital markets and promote two-way opening of the mining capital market. Develop regional mineral resource market platforms and mining financial capital centers. Accelerate the development of a capital market service system to provide professional services to mining companies.

**Section 3 Accelerating the pace of mining industry’s “going global”**

1. Cultivate a first-class mining group with international competitiveness

We will optimize the policy environment, guide mergers, alliances, and restructuring, and strive to build a group of modern mining groups with transnational capabilities. We will enhance cultural tolerance and cooperation, promote localized operations among mining companies, effectively manage relationships with local governments and communities, effectively address environmental and Indigenous issues, and cultivate a positive image. We will innovate overseas mining investment and cooperation models, encouraging companies to diversify their investments through equity acquisitions, joint ventures, private equity funds, and supply and marketing agreements.

II. Improve the service guarantee mechanism for the mining industry to “go global”

Improve and perfect the coordination mechanism for overseas mineral resource exploration and development, strengthening policy coordination and support in economic, trade, foreign exchange, customs, and diplomatic fields. Accelerate platform development and increase the dissemination and sharing of overseas geological and mineral information and mining investment projects. Strengthen risk monitoring and early warning for overseas mineral resource exploration and development. Actively cultivate multi-disciplinary senior management and mining technical personnel to meet the talent needs of overseas mining investment.

**Section 4 Actively Participate in Global Mining Governance**

Actively participate in the research and development of mining initiatives within major international organizations such as the United Nations, APEC, and the Shanghai Cooperation Organization. Actively participate in the development of multilateral and bilateral rules for mineral resource cooperation, strengthen integration with mining markets, policies, and standards in various countries, and promote the integrated development of the global mining industry. Guide industry associations and research institutions to actively participate in mineral trade negotiations and the revision of investment rules. Promote the establishment of regional mineral trading centers. Accelerate the implementation of the free trade zone strategy, encourage Chinese mining companies to "go global," and create a better international environment for their overseas investment and cooperation.

**Chapter VII: Adhere to shared development and realize the benefits of resources to the people**

Leverage resource advantages to assist in targeted poverty alleviation, improve the resource development income distribution mechanism, effectively improve the level of public geological survey services, promote the

transformation and development of resource-based cities, and share the benefits of mining development.

Section 1: Leveraging Resource Advantages to Help Poverty Alleviation

We will integrate mineral development with poverty alleviation, supporting impoverished areas in leveraging their resource advantages to promote the development of distinctive and advantageous industries such as the mining economy and geological tourism, thereby facilitating poverty alleviation. We will implement preferential policies, prioritizing old revolutionary base areas, ethnic minority areas, border regions, and contiguous impoverished areas in the deployment of major mineral exploration projects, resource development work arrangements, and the allocation of mining rights. We will increase support for basic, public-welfare geological and mineral surveys in impoverished areas. We will conduct comprehensive groundwater surveys in contiguous and particularly difficult areas to address drinking water difficulties for people and livestock. We will increase support for projects such as geological disaster prevention and control and mine geological environment remediation, effectively utilizing the geological disaster avoidance and relocation policy to effectively protect the lives and property of the people and improve the production and living conditions of local residents.

Section 2 Improving the Resource Development Income Distribution Mechanism

Improve the revenue distribution system, further tilting the distribution of mineral development revenue toward the region of origin. Establish a resource revenue conversion mechanism, increasing investment of resource revenue in academic education, skills training, scientific and technological research and development, and the cultivation of alternative industries. Build a benefit-sharing mechanism between mining companies and residents of mining areas. Pilot programs will be implemented to compensate local residents for the occupation of collective land for mineral resource development in impoverished areas through collective equity. Strengthen the social responsibility awareness of mining companies, improve the infrastructure in mining areas and the production and living conditions of residents surrounding mining areas, and prioritize the recruitment of local labor, creating a favorable environment where local resources are developed, local people benefit, and local development is promoted.

Section 3: Enhancing the supply of public geological survey services

Adhere to demand-driven development, strengthen services, and accelerate the transformation of traditional geological and mineral resources work toward big geology, big resources, and big environment. Implement geological and mineral survey plans to serve the five major needs of ecological civilization development, disaster prevention and mitigation, new urbanization, industrialization, and agricultural modernization, major engineering projects, and the development of a strong maritime nation. Promote the deep integration of information technology, geological and technological innovation, and geological work. Establish a mechanism for the aggregation, sharing, and updating of basic geological survey data. Build a national geological big data service platform, develop diverse information service products, and promote the in-depth application of information technology in the geological and mineral resources sector. Promote cross-level and cross-departmental information sharing, business collaboration, and institutional integration. Actively cultivate the information technology service market, guide the development of information service institutions, and encourage enterprises, the public, and other social forces to provide public-welfare geological and mineral information services through various means.

Column 10: Major Basic Public Welfare Geological and Mineral Survey Projects
<div>(1) Geological survey of terrestrial energy and mineral resources.  Conduct surveys and evaluations of oil and gas, shale gas, and northern sandstone-type uranium resources; conduct national surveys on coalbed methane, special coal, oil shale, oil sands, and other resources; and conduct surveys on geothermal and hot dry rock resources.</div> <div>(2) Survey of important mineral resources.  Carry out 1:50,000 mineral geological surveys in important mineralization belts and key exploration areas , and identify new prospecting targets.</div> <div>(3) Comprehensive survey of the geological environment of important economic zones and urban agglomerations.  Carry out comprehensive geological surveys in the Beijing-Tianjin-Hebei region, Yangtze River Delta, Pan-Pearl River Delta, coastal zone, and Yangtze River Economic Belt.</div> <div>(4) Support for geological disaster prevention and control and geological environment protection.  Carry out geological hazard investigation and demonstration in important towns and major engineering planning areas, carry out regional engineering geological surveys in important economic zones, and carry out hydrogeological surveys in ecologically fragile areas and concentrated and contiguous poverty-stricken areas in the west.</div> <div>(5) Basic geological support for land development and protection.</div>

Column 10: Major Basic Public Welfare Geological and Mineral Survey Projects
<p>Carry out mine geological environment surveys in key areas such as coal mining subsidence areas, carry out comprehensive remote sensing surveys and monitoring of natural resources across the country, and carry out comprehensive geological surveys of resources and environment in areas where mineral resources are concentrated.</p> <p>(6) Scientific and technological support for geological surveys.</p> <p>Carry out special investigations and research on mineralization environment, structure, sedimentation, magma and Precambrian metamorphic basement, and implement deep geological survey projects.</p> <p>(7) Basic geological survey and information services for the Belt and Road Initiative .</p> <p>Establish a geological, mineral and mining investment environment information system for countries and regions along the Belt and Road .</p> <p>(8) Geological data update and application services.</p> <p>Carry out the construction and integration of the national geological database, comprehensive research and product development of geological intelligence, and build a geological big data support service platform.</p> <p>(9) Basic public welfare geological surveys in the ocean.</p> <p>Carry out 1: 250,000 marine regional geological surveys in key sea areas and medium-to-large-scale comprehensive geological surveys of coastal zones, establish a comprehensive monitoring system for the geological environment of coastal zones, and build the basic framework and social service system of China's "digital marine geology " .</p> <p>(10) Exploration and trial production of natural gas hydrates.</p> <p>Conduct natural gas hydrate resource surveys and implement offshore natural gas hydrate pilot production projects. Build and upgrade natural gas hydrate survey vessels and equipment, and establish a natural gas hydrate exploration and development base.</p> <p>(11) Construction of a national oil and gas resource exploration and production supervision and monitoring system.</p> <p>Build an oil and gas dynamic supervision and monitoring information platform to provide oil and gas resource information products and social services.</p>



Section 4 Promoting the Sustainable Development of Resource-Based Cities

Support resource-based cities in developing and strengthening their mining economies, accelerating economic restructuring, transformation, and upgrading, and enhancing their capacity for sustainable development. Increase mineral exploration efforts in growing resource-based cities, standardize development procedures, and establish a number of energy and resource bases. Promote efficient mineral development in mature resource-based cities, encourage large-scale operations, extend the industrial chain, and accelerate transformation and upgrading. Continue to support declining resource-based cities in prospecting for successive resources, strengthen geological environmental remediation efforts at historical mine sites, and improve the human living environment. Innovate investment and financing systems, leveraging capital market-based operations to achieve flexible industrial transformation and a service-oriented shift.

Chapter 8 Planning Implementation and Management

Section 1 Strengthening Organizational Leadership

All relevant departments of the State Council should strengthen coordination and cooperation, ensure policy alignment, and form a joint force to promote the implementation of the plan, in accordance with their respective functions. The Ministry of Land and Resources should strengthen coordination with the National Development and Reform Commission, the Ministry of Industry and Information Technology, the Ministry of Finance, the Ministry of Environmental Protection, the Ministry of Commerce, and the National Energy Administration to promptly address and resolve major issues in the implementation of the plan. All regions should effectively strengthen organizational leadership, fully implement the goals and tasks of the national mineral resources plan, and expedite the organization and promotion of the compilation of mineral resources plans at all levels. Responsibilities for plan implementation should be clarified, and assessment methods for the implementation of plan goals should be formulated. The implementation of key targets, major projects, major policies, and important reform tasks should be strengthened, and assessment results should be incorporated into the performance evaluation system to ensure the effective implementation of all tasks set out in the plan.

Section 2 Implementation of Major Projects

Innovate investment mechanisms for major projects. National fiscal resources will prioritize supporting basic public-welfare geological surveys, strategic mineral exploration, and the storage and protection of important mineral resources. Improve the public-private partnership (PPP) model, actively guide private investment, and ensure the implementation of projects such as the development and utilization of important mineral resources, the conservation and comprehensive utilization of mineral resources, the development of green mines and green mining demonstration zones, the restoration of the geological environment of historical mines, and the storage and protection of mineral resources. Strengthen leadership, organization, and coordination for the implementation of major projects, establish green approval channels, and ensure the smooth progress of projects.

Section 3 Strengthening Monitoring and Evaluation

Establish a planning implementation monitoring and dynamic evaluation mechanism. The Ministry of Land and Resources will work with relevant departments to strengthen mining situation analysis, statistics and monitoring of industrial development, strengthen tracking analysis and dynamic evaluation of planning implementation and environmental impact, grasp the progress of major goals and tasks such as total volume control and layout structure adjustment, and propose timely solutions to new situations and new problems arising in the implementation of the plan.

Section 4 Strict Supervision and Management

Improve the supervision and management mechanism for plan implementation, clarifying key areas of supervision, work arrangements, and specific supervisory measures. Improve the planning supervision and inspection system, integrating special inspections with regular oversight and inspections. Use satellite remote sensing and other technical means to expand the scope of monitoring plan implementation and strengthen supervision and management of mineral exploration and development activities in key planned areas. Promptly correct violations of the plan and, when necessary, conduct joint inspections with relevant departments.



Appendix 1 Energy Resource Bases (103)

Minerals	Mineral Type	name
energy Minerals ( 26 )	Oil and Gas ( 9 )	Songliao Basin, Bohai Bay, Ordos Basin, Tarim Basin, Junggar Basin, Sichuan Basin, western Hubei, northern South China Sea, East China Sea
	coal ( 14 )	Shendong, northern Shanxi, central Shanxi, eastern Shanxi, eastern Inner Mongolia (northeastern), Yunnan and Guizhou, Henan, western Shandong, Huaibei and Huaibei, Huanglong, central Hebei, eastern Ningxia, northern Shaanxi, and Xinjiang
	uranium mines ( 3 )	Yili, Xinjiang, Ordos, Inner Mongolia, Tongliao, Inner Mongolia
Ferrous metal minerals ( 15 )	iron ore ( 10 )	Anben in Liaoning, Panxi in Sichuan, Jidong in Hebei, Baobai in Inner Mongolia, Ningwu and Lucong in Shanxi, Xinzhou-Lüliang in Shanxi, Central and Western Shandong in Shandong, Huoqiu in Anhui, Tianshan in Xinjiang, and West Kunlun in Xinjiang
	manganese ore ( 5 )	Eastern Guizhou – Western Hunan, Southwest Guangxi, Akto – Wuqia in Xinjiang, Yongzhou in Hunan, Mengzi – Yanshan – Qiubei in Southeast Yunnan
Nonferrous metal minerals ( 43 )	copper mines ( 7 )	Anhui Tongling-Wuhu, Jiangxi Dexing-Jiujiang, Inner Mongolia Hulunbuir, Shanxi Houma-Yuanqu, Northwest Yunnan, Tibet Qulong, Tibet Yulong
	Bauxite ( 6 )	Central Shanxi, southern Shanxi, western Shanxi, northwestern Henan, northern central Guizhou, and southwestern Guangxi
	nickel ore ( 2 )	Jinchuan, Gansu, and Yemaquan, Qinghai – Summer Hamu

	Lead–zinc mines ( 10 )	Urad Rear Banner, Inner Mongolia; northern Chifeng, Inner Mongolia; Tanjianshan–Xitieshan Mountain, Qinghai; Longnan, Gansu; Shaoguan, Guangdong; central Yunnan–southern Sichuan; southwestern Yunnan; Wuqia, Xinjiang; Huoshaoyun, Hotan, Xinjiang; Huayuan, western Hunan
	Tungsten, tin and antimony Polymetallic ( 7 )	Wuning–Xiushui in Jiangxi, southern Jiangxi, Gejiu–Maguan–Dulong in southeastern Yunnan, Hechi in Guangxi, Chenzhou in Hunan, Lengshuijiang in Anhua, Hunan, Zhangye–Jiuquan in Gansu
	Molybdenum ore ( 4 )	Yichun, Heilongjiang, western Henan, Weinan, Shaanxi, and Jinzhai, Anhui
	gold mine ( 7 )	Zhaoyuan–Laizhou in Shandong, Xiaoqinling–Xiong'er Mountain in Henan, Purple Mountain in Longyan, Fujian, Zhenfeng–Pu'an in Guizhou, East Kunlun in Qinghai, Gannan in Gansu, Pingjiang–Liling in Hunan
Non-metallic minerals ( 5 )	Phosphate rock ( 3 )	Central Yunnan, Guizhou Kaiyang–Wengfu, Hubei Yixing Bao
	potassium salt ( 2 )	Chaerhan in Qinghai and Lop Nur in Xinjiang
Strategic emerging industries minerals ( 14 )	rare earths ( 6 )	Baotou, Inner Mongolia, Liangshan, Sichuan, Ganzhou, Jiangxi, Jianghua, Hunan, Hezhou, Guangxi, and Southwest Fujian
	graphite ( 6 )	Jixi, Heilongjiang, Heilongjiang Hegang, Xinghe–Baotou, Inner Mongolia, Alxa League, Inner Mongolia, Bazhong, Sichuan, Panzhihua
	lithium ore ( 2 )	Sichuan Jiajiajia, Qinghai Yiliping–Dongtai

Appendix 2 Nationally Planned Mining Areas (267)

Mineral Type	Serial number	name	Location
	1	Kailuan Mining Area	Tangshan City, Hebei Province
	2	Handan Mining Area	Handan City, Hebei Province
	3	Xingtai mining area	Xingtai City, Hebei Province
	4	Fengfeng Mining Area	Handan City, Hebei Province
	5	Plain mining area	Langfang City and Cangzhou City in Hebei Province
	6	Datong Mining Area	Datong City and Shuozhou City in Shanxi Province
	7	Xuangang Mining Area	Xinzhou City, Shanxi Province

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8	Lanxian Mining Area	Taiyuan, Xinzhou, and Lüliang in Shanxi Province
9	Pingshuo Mining Area	Shuozhou City, Shanxi Province
10	Shuonan Mining Area	Shuozhou City, Shanxi Province
11	Hebaopian Mining Area	Xinzhou City, Shanxi Province
12	Xishan Mining Area	Taiyuan City and Luliang City in Shanxi Province
13	Dongshan Mining Area	Taiyuan City, Shanxi Province
14	Huodong Mining Area	Changzhi City and Linfen City in Shanxi Province
15	Huozhou Mining Area	Linfen City and Jinzhong City in Shanxi Province
16	Liliu Mining Area	Lüliang City, Shanxi Province
17	Xiangning Mining Area	Linfen City and Yuncheng City in Shanxi Province
18	Jincheng mining area	Jincheng City, Shanxi Province
19	Lu'an Mining Area	Changzhi City, Shanxi Province
20	Yangquan Mining Area	Yangquan City and Jinzhong City in Shanxi Province
twenty one	Fenxi Mining Area	Jinzhong City and Lüliang City in Shanxi Province
twenty two	Shixi Mining Area	Lüliang City and Linfen City in Shanxi Province
twenty three	Wuxia Mining Area	Changzhi City and Jinzhong City in Shanxi Province
twenty four	Wujiu Mining Area	Hulunbuir City, Inner Mongolia
25	Zhunhanuoer Mining Area	Xilingol League, Inner Mongolia
26	Chagan Nur Mining Area	Xilingol League, Inner Mongolia
27	Jirigalang Mining Area	Xilingol League, Inner Mongolia
28	Harigaobi Mining Area	Xilingol League, Inner Mongolia
29	Saikhantala Mining Area	Xilingol League, Inner Mongolia
30	Shaogen Mining Area	Chifeng City, Inner Mongolia
31	Nalinshili mining area	Ordos City, Inner Mongolia
32	Nalin River Mining Area	Ordos City, Inner Mongolia
33	Hujirt Mining Area	Ordos City, Inner Mongolia
34	Taigemiao mining area	Ordos City, Inner Mongolia
35	Xinjie Mining Area	Ordos City, Inner Mongolia
36	Zhalainuoer mining area	Hulunbuir City, Inner Mongolia
37	Hulieyetu Mining Area	Hulunbuir City, Inner Mongolia





Coal (162 )	38	Baorixile Mining Area	Hulunbuir City, Inner Mongolia
	39	Yimin Mining Area	Hulunbuir City, Inner Mongolia
	40	May Day Ranch Mining Area	Hulunbuir City, Inner Mongolia
	41	Nomonhan Mining Area	Hulunbuir City, Inner Mongolia
	42	Huolinhe Mining Area	Xilinguole League and Tongliao City, Inner Mongolia
	43	Nongnaimiao Mining Area	Xilingol League, Inner Mongolia
	44	Hesgula Mine	Xilingol League, Inner Mongolia
	45	Baiyinhua Mining Area	Xilingol League, Inner Mongolia
	46	Gaolihan Mining Area	Xilingol League, Inner Mongolia
	47	Dautenur Mining Area	Xilingol League, Inner Mongolia
	48	Unite Mining Area	Xilingol League, Inner Mongolia
	49	Wujianfang Mining Area	Xilingol League, Inner Mongolia
	50	Bayanhushuo Mining Area	Xilingol League, Inner Mongolia
	51	Baqi North Mining Area	Xilingol League, Inner Mongolia
	52	Jilin Gol Mining Area	Xilingol League, Inner Mongolia
	53	Baiyinwula mining area	Xilingol League, Inner Mongolia
	54	Naren Baolige Mining Area	Xilingol League, Inner Mongolia
	55	Shengli Mining Area	Xilingol League, Inner Mongolia
	56	Jungar Mining Area	Ordos City, Inner Mongolia
	57	Central Jungar Mining Area	Ordos City, Inner Mongolia
	58	Shendong Mining Area Dongsheng District	Ordos City, Inner Mongolia
	59	Wanli Mining Area	Ordos City, Inner Mongolia
	60	Gaotouyao mining area	Ordos City, Inner Mongolia
	61	Tarangol Mining Area	Ordos City, Inner Mongolia
	62	Shanghai Temple Mining Area	Ordos City, Inner Mongolia
	63	Wuhai mining area	Wuhai City, Inner Mongolia
	64	Baiyanhua Mining Area	Baotou City and Bayannur City, Inner Mongolia
	65	Bayan Baolige Mining Area	Xilingol League, Inner Mongolia
	66	Fuxin Mining Area	Fuxin City and Jinzhou City, Liaoning Province
	67	Shenyang Mining Area	Shenyang and Liaoyang, Liaoning
	68	Jixi Mining Area	Jixi City, Heilongjiang Province
Coal (162 )	69	Hegang Mining Area	Hegang City, Heilongjiang Province
	70	Shuangyashan mining area	Shuangyashan City, Heilongjiang Province
	71	Qitaihe Mining Area	Qitaihe City, Heilongjiang Province
	72	Huaibei Mining Area	Huaibei, Suzhou, and Bozhou in Anhui Province



Coal ( 162 )

73	Huainan Mining Area	Huainan City and Fuyang City in Anhui Province
74	Juye Mining Area	Heze City and Jining City in Shandong Province
75	Jining Mining Area	Jining, Tai'an, and Heze in Shandong
76	Yellow River North Mining Area	Liaocheng, Jinan, and Dezhou in Shandong
77	Yongxia Mining Area	Shangqiu City, Henan Province
78	Zhengzhou mining area	Zhengzhou and Luoyang in Henan Province
79	Pingdingshan mining area	Pingdingshan City and Xuchang City in Henan Province
80	Yima Mining Area	Sanmenxia City and Luoyang City in Henan Province
81	Jiaozuo mining area	Jiaozuo, Xinxiang, and Jiyuan in Henan Province
82	Hebi Mining Area	Hebi City and Anyang City in Henan Province
83	Guxu Mining Area	Luzhou City, Sichuan
84	Junlian Mining Area	Yibin City, Sichuan
85	Liuzhi Heitang Mining Area	Liupanshui City and Anshun City, Guizhou Province
86	Puxing Mining Area	Qianxinan Prefecture, Guizhou
87	Qianbei Mining Area	Zunyi and Bijie cities in Guizhou
88	Zhina Mining Area	Bijie City, Guizhou
89	Shuicheng Mining Area	Liupanshui City, Guizhou Province
90	Faer Mining Area	Liupanshui City, Guizhou Province
91	Panjiang Mining Area	Liupanshui City, Guizhou Province
92	Enhong Mining Area	Qujing City, Yunnan
93	Zhenxiong Mining Area	Zhaotong City, Yunnan
94	Qingyun Mining Area	Qujing City, Yunnan
95	Old factory and mining area	Qujing City, Yunnan
96	Kuazhu Mining Area	Honghe Prefecture, Yunnan
97	Xiaolongtan Mining Area	Honghe Prefecture, Yunnan
98	Zhaotong mining area	Zhaotong City, Yunnan
99	Shenfu District, Shendong Mining Area	Yulin City, Shaanxi Province
100	Yushen Mining Area	Yulin City, Shaanxi Province
101	Yuheng Mining Area	Yulin City, Shaanxi Province
102	Binchang Mining Area	Xianyang City, Shaanxi Province
103	Yonglong Mining Area	Baoji City and Xianyang City in Shaanxi Province
104	Hancheng Mining Area	Weinan City, Shaanxi Province
105	Chenghe Mining Area	Weinan City, Shaanxi Province

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106	Pubai Mining Area	Weinan City, Shaanxi Province
107	Tongchuan mining area	Tongchuan City and Weinan City in Shaanxi Province
108	Gucheng Mining Area	Yulin City, Shaanxi Province
109	Wubao Mining Area	Yulin City, Shaanxi Province
110	Huangling Mining Area	Yan'an City, Shaanxi Province
111	Xunyao Mining Area	Tongchuan City and Xianyang City in Shaanxi Province
112	Fugu Mining Area	Yulin City, Shaanxi Province
113	Ningzheng Mining Area	Qingyang City, Gansu Province
114	Hongshagang Mining Area	Wuwei City, Gansu Province
115	Huating Mining Area	Pingliang City, Gansu Province
116	Lingtai Mining Area	Pingliang City, Gansu Province
117	Tianshuibao Mining Area	Qingyang City, Gansu Province
118	Shajingzi Mining Area	Qingyang City, Gansu Province
119	Tulu Mining Area	Jiuquan City, Gansu Province
120	Muli Mining Area	Haixi Prefecture and Haibei Prefecture in Qinghai Province
121	Yuka Mining Area	Haixi Prefecture, Qinghai
122	Majiatan mining area	Yinchuan and Wuzhong cities in Ningxia
123	Jijiajing Mine Area	Yinchuan and Wuzhong cities in Ningxia
124	Weizhou mining area	Wuzhong City, Ningxia
125	Lingwu Mining Area	Yinchuan City, Ningxia
126	Yuanyang Lake Mining Area	Yinchuan City, Ningxia
127	Hongdunzi Mining Area	Yinchuan City, Ningxia
128	Mengcheng Mining Area	Wuzhong City, Ningxia
129	Dananhu Mining Area	Hami City, Xinjiang
130	Naomaohu mining area	Hami City, Xinjiang
131	Sharhu Mining Area	Hami City, Xinjiang
132	Santanghu Mining Area	Hami City, Xinjiang
133	Ayding Lake Mining Area	Turpan City, Xinjiang
134	Kumtag mining area	Turpan City, Xinjiang
135	Wucaiwan Mining Area	Changji Prefecture, Xinjiang
136	Dajing Mining Area	Changji Prefecture, Xinjiang
137	Jiangjunmiao Mining Area	Changji Prefecture, Xinjiang
138	West Black Mountain Mining Area	Changji Prefecture, Xinjiang
139	Laojunmiao Mining Area	Changji Prefecture, Xinjiang



Coal ( 162 )	140	Heshitologai mining area	Tacheng area in Xinjiang
	141	Fukang Mining Area	Changji Prefecture, Xinjiang
	142	Sulfur ditch mining area	Urumqi City and Changji Prefecture, Xinjiang
	143	Black Mountain Mining Area	Turpan City, Xinjiang
	144	Yining Mining Area	Ili Prefecture, Xinjiang
	145	Nileke Mining Area	Ili Prefecture, Xinjiang
	146	Manastasi River Mining Area	Changji Prefecture, Xinjiang
	147	Sikeshu Mining Area	Tacheng area in Xinjiang
	148	Shawan Mining Area	Tacheng area in Xinjiang
	149	Changji Baiyanghe Mining Area	Changji Prefecture, Xinjiang
	150	Aai Mining Area	Aksu Prefecture, Xinjiang
	151	Yangxia Mining Area	Bayingolin Prefecture, Xinjiang
	152	Kebur Alkali Mine Area	Turpan City, Xinjiang
	153	Sandaoling Mining Area	Hami City, Xinjiang
	154	Barkol Mining Area	Hami City, Xinjiang
	155	Tacheng Baiyanghe Mining Area	Tacheng area in Xinjiang
	156	Aiweiergou Mining Area	Urumqi and Turpan, Xinjiang
	157	Kamuste Mining Area	Altay Prefecture, Xinjiang
	158	Beitashan Mining Area	Changji Prefecture, Xinjiang
	159	Zhaosu Mining Area	Ili Prefecture, Xinjiang
Coalbed Methane ( 12 )	160	Okhobak mining area	Aksu Prefecture, Xinjiang
	161	Baicheng Mining Area	Aksu Prefecture, Xinjiang
	162	Tashdian Mining Area	Bayingolin Prefecture, Xinjiang
	163	Qinshui–Tunliu Mining Area	Jincheng City and Changzhi City in Shanxi Province
	164	Zuoquan–Xiyang Mining Area	Jinzhong City and Yangquan City in Shanxi Province
	165	Qinyuan–Anze mining area	Changzhi City and Linfen City in Shanxi Province
	166	Gujiao–Jiaocheng mining area	Taiyuan City and Luliang City in Shanxi Province
	167	Baode–Xingxian Mining Area	Xinzhou City, Lüliang City, Shanxi Province, and Fugu County, Shaanxi Province
	168	Liulin–Shilou Mining Area	Lüliang City, Shanxi Province
	169	Xiangning–Jixian mining area	Linfen City, Shanxi Province
	170	Lianghuai Mining Area	Huainan City and Huaibei City in Anhui Province
	171	Jiaozuo–Xinxiang mining area	Jiaozuo City and Xinxiang City in Henan Province
	172	Enhong–Old Factory Mining Area	Qujing City, Yunnan
	173	Pan County Mining Area	Pan County, Guizhou
	174	Nayong–Pingba Mining Area	Zhijin County and Nayong County, Guizhou Province



Uranium ( 11 )	175	Mengqigur Mining Area	Chabuchaer County, Xinjiang
	176	Kuteltai Mining Area	Chabuchaer County, Xinjiang
	177	Shihongtan Mining Area	Turpan City, Xinjiang
	178	Qianjiadian Mining Area	Tongliao City, Inner Mongolia
	179	Daying Mining Area	Ordos City, Inner Mongolia
	180	Nalinggou Mining Area	Ordos City, Inner Mongolia
	181	Zaohuohao Mining Area	Dongsheng District and Ejin Horo Banner, Ordos City, Inner Mongolia
	182	Basezi mining area	Sonid Left Banner, Sonid Right Banner, and Erenhot City, Inner Mongolia
	183	Xiangshan Mining Area	Le'an County, Jiangxi Province
	184	Yangtze River Mining Area	Shaoguan City, Guangdong
	185	Longshoushan Mining Area	Yongchang County, Gansu
Iron ( 4 )	186	Anben Mining Area	Anshan, Benxi, and Liaoyang in Liaoning Province
	187	Jidong Sijiaying Mining Area	Luan County and Luannan County, Hebei Province
	188	Panzhuhua vanadium–titanium magnetite mine	Panzhuhua City, Sichuan
	189	Baima vanadium–titanium magnetite mine	Panzhuhua City, Sichuan
Nickel Copper Cobalt ( 9 )	190	Baijiazui copper–nickel mining area	Jinchang City, Gansu Province
	191	Dabaoshan Copper Polymetallic Mining Area	Shaoguan City, Guangdong
	192	Zijinshan Copper and Gold Mining Area	Shanghang County, Fujian
	193	Dexing Copper Mine Area	Dexing City, Jiangxi Province
	194	Chengmenshan Copper Mine Area	Jiujiang County, Jiangxi Province
	195	Dahongshan Copper Mine Area	Xinping County, Yunnan
	196	Pulang Copper Mine	Diqing Prefecture, Yunnan
	197	Qulong Copper Mine Area	Lhasa, Tibet
	198	Yulong Copper Mine Area	Qamdo, Tibet
Bauxite ( 5 )	199	Pingguo bauxite mining area	Pingguo County, Guangxi
	200	Xingxian bauxite mining area	Xing County, Lin County, and Kelan County in Shanxi Province
	201	Ningwu–Yuanping bauxite mining area	Ningwu County, Yuanping City, and Shuocheng District of Shuozhou City, Shanxi Province
	202	Fenyang–Xiaoyi bauxite mining area	Fenyang City, Xiaoyi City, and Jiaokou County in Shanxi Province
	203	Jiaokou–Fenxi bauxite mining area	Lüliang City, Jinzhong City, and Linfen City in Shanxi Province
tin Polymetallic ( 3 )	204	Gejiu Tin Mining Area	Gejiu City, Yunnan
	205	Dulong Tin Mine Area	Maguan County, Yunnan
	206	Dachang tin–lead–zinc polymetallic mining area	Nandan County, Guangxi
	207	New Town Gold Mine	Laizhou City, Shandong Province
	208	Sanshan Island Gold Mine	Laizhou City, Shandong Province
	209	Jiaojia Gold Mine	Laizhou City, Shandong Province



gold ( 17 )	210	Linglong Gold Mine	Zhaoyuan City, Shandong Province
	211	offshore gold mines	Laizhou City, Shandong Province
	212	Laizhou Shaling Gold Mine	Laizhou City, Shandong Province
	213	Xiadian Gold Mine	Zhaoyuan City, Shandong Province
	214	Dayingezhuang Gold Mine	Zhaoyuan City, Shandong Province
	215	Shandong Zhongkuang Lingnan– Fushan Gold Mine	Zhaoyuan City, Shandong Province
	216	Zaozigou Gold Mine	Hezuo City, Gansu Province
	217	Gansu Daqiao Gold Mine	Xihe County, Gansu Province
	218	Woxi Gold–Antimony–Tungsten Mine	Huaihua City, Hunan Province
	219	Jinshan, Jiangxi	Dexing City, Jiangxi Province
	220	Wulashan–Hadmen Gold Mine	Baotou City and Bayannur City, Inner Mongolia
	221	Jinchanggouliang Gold Mine	Chifeng City, Inner Mongolia
	222	Bilihe Gold Mine	Sunite, Inner Mongolia
	223	Haoyaoerhudong Gold Mine	Urad Middle Banner, Inner Mongolia
Rare Earth ( 24 )	224	Longnan Heavy Rare Earth Mining Area ( 1 )	Longnan County, Jiangxi Province
	225	Longnan Heavy Rare Earth Mining Area ( 2 )	Longnan County, Jiangxi Province
	226	Xunwu light rare earth mining area	Xunwu County, Jiangxi Province
	227	Dingnan rare earth mining area	Dingnan County, Jiangxi Province
	228	Ganxian (North) Central Rare Earth Mining Area	Gan County, Jiangxi Province
	229	Ganxian (Central) Heavy Rare Earth Mining Area	Gan County, Jiangxi Province
	230	Ganxian (South) Central Rare Earth Mining Area	Gan County, Jiangxi Province
	231	Anyuan medium and heavy rare earth mining area	Anyuan County, Jiangxi Province
	232	Xinfeng (North) Central Rare Earth Mining Area	Xinfeng County, Jiangxi Province
	233	Xinfeng (South) Medium and Heavy Rare Earth Mining Area	Xinfeng County, Jiangxi Province
	234	Quannan Rare Earth Mining Area	Quannan County, Jiangxi Province
	235	Xinfeng Yaotian Rare Earth Mining Area	Shaoguan City, Guangdong
	236	Bashi rare earth mining area	Meizhou City, Guangdong
	237	Qingyuan Yuwan rare earth mining area	Qingyuan City, Guangdong
	238	Jingzi rare earth mining area	Heyuan City, Guangdong
	239	Boshi rare earth mining area	Heyuan City, Guangdong
	240	Jianghua rare earth mining area	Jianghua County, Hunan
	241	Zhongshan–Fuchuan Huashan Rare Earth Mining Area	Zhongshan County and Fuchuan County, Guangxi
	242	Pingnan Liuchen–Dazhou Rare Earth Mining Area	Pingnan County, Guangxi
	243	Jiangzhou rare earth mining area	Jiangzhou District, Guangxi
	244	Daqingshan rare earth mining area	Longzhou County, Guangxi



	245	Nuodong rare earth mining area	Cenxi City, Guangxi
	246	Xingye Rare Earth Mining Area	Xingye County, Guangxi
	247	Yaoniuping rare earth mining area	Liangshan Prefecture, Sichuan
phosphorus ( 3 )	248	Anning–Jinning Phosphate Mining Area	Kunming, Yunnan
	249	Yichang Phosphate Mine Northern Phosphate Mine Area	Shennongjia Forest District, Baokang County, and Xingshan County in Hubei Province
	250	Deyang–Mabian–Leibo Phosphate Mining Area	Deyang City, Mabian County, and Leibo County in Sichuan Province
Tungsten ( 5 )	251	Xiaoliugou Tungsten–Molybdenum Mining Area	Sunan County, Gansu
	252	Dahutang Tungsten Mining Area	Wuning County, Jiangxi Province
	253	Coral Tungsten–Tin Mine Area	Zhongshan County and Babu District, Guangxi
	254	Bobai Sanchachong–Youmapo Tungsten Mining Area	Bobai County and Luchuan County, Guangxi
	255	Yunfu tungsten–tin mining area	Yunfu City, Guangdong
Antimony ( 1 )	256	Lengshuijiang Xikuangshan Antimony Mining Area	Lengshuijiang City, Hunan
Graphite ( 6 )	257	Jixi graphite mining area	Jixi City, Heilongjiang Province
	258	Luobei Graphite Mining Area	Hegang City, Heilongjiang Province
	259	Bazhong graphite mining area	Bazhong City, Sichuan
	260	Pingdu–Laixi graphite mining area	Qingdao City, Shandong Province
	261	Chenzhou graphite mining area	Chenzhou City, Hunan Province
	262	Nanyang Graphite Mining Area	Nanyang City, Henan Province
Lead and zinc ( 4 )	263	Changba–Xiangyangshan lead–zinc mining area	Huixian and Chengxian counties in Gansu
	264	Shaoguan Fankou Lead–Zinc Mining Area	Shaoguan City, Guangdong
	265	Lanping lead–zinc mining area	Lanping County, Yunnan
	266	Hotan Huoshaoyun Lead–Zinc Mining Area	Hotan County, Xinjiang
Lithium ( 1 )	267	Jijiaka lithium mining area	Ganzi Prefecture, Sichuan

Appendix 3 Mining areas of great value to the national economy (28)

Mineral Type	Serial number	name	L o c a t i o n
uranium mines ( 8 )	1	Qinglong uranium mining area	Q i n g l o n g C o u n t y,



		Hebei Province and Jinchang County, Liaoning Province
2	Guyuan uranium mining area	Guyuan County, Hebei Province



	3	Nuhotin uranium mining area	E re n h o t C it y, In n er M o n g ol ia
	4	Tamusu uranium mining area	Al x a R ig ht B a n n er , In n er M o n g ol ia
	5	Dazhou uranium mining area	Q u z h o u C it y, Z h ej ia n g P r o vi n c e



	6	Lujing uranium mining area	Chongyi County, Jiangxi Province
	7	Xiazhuang uranium mining area	Wengyan County, Guangdong
	8	Miaoershan uranium mining area	Ziyuan County, Guangxi



Iron Vanadium Titanium ( 1 )	9	Honggenan Mining Area	Y a n b i a n C o u n t y, S i c h u a n
Copper polymetallic ( 5 )	10	Xiashan–Yanshan Copper Mining Area	C h i z h o u C i t y, A n h u i P r o v i n c e
	11	Dabei Copper Mine Area	P e n g z e C o u n t y, J i a n g x i P r o v i n c e
	12	Hexi silver–copper polymetallic mining area	L a



			n pi n g C o u n t y, Y u n n a n
	13	Duolong Copper Mine Area	N g ar i P re fe ct ur e, Ti b et
	14	Songduowu copper–molybdenum mining area in Doilungdeqen County	D oi lu n g d e q e n C o u n t y, Ti b et
Lead and zinc ( 2 )	15	East Mozhazha lead–zinc mining area	Z a d u o C o u n t y, Q in g h ai



	16	Hushan City–Laojunshan Lead–Zinc–Tin Mining Area	W e n s h a n C o u n t y, Y u n n a n
Antimony ( 1 )	17	Hamunxi–Yalugou Antimony–Gold Mining Area	Xi n g h ai C o u n t y a n d T o n g d e C o u n t y, Q i n g h ai
Bauxite ( 2 )	18	Bauxite mining area in the northern part of Huanxi syncline	D a o z h e n C o u n t y, G u i z



			h o u
	19	Mazongling bauxite mining area	Z h e n g' a n C o u n t y, G u i z h o u
Tungsten Tin ( 3 )	20	Zhuxi peripheral tungsten and copper mining area	F u l i a n g C o u n t y a n d L e p i n g C o u n t y, J i a n g x i P r o v i n c e
	twenty one	Wanyangshan-Zhuguangshan tungsten-tin mining area	C h o n g y i





			C o u n t y a n d G u i d o n g C o u n t y, Ji a n g x i P r o v i n c e
	twenty two	Tundoma tin polymetallic mining area	L e i w u q i C o u n t y, Ti b e t
Molybdenum ( 1 )	twenty three	Wushan Hot Spring Molybdenum Mining Area	W u s h a n C o u n t y, G a n s u
rare earths	twenty four	Kansai rare earth mining area	L o



		n g n a n C o u n t y, Ji a n g x i P r o v i n c e
25	Nanqiao rare earth mining area	X u n w u C o u n t y, Ji a n g x i P r o v i n c e
26	Heling rare earth mining area	X u n w u C o u n t y, Ji a n g x i P r o



		vi n c e
27	Shatou rare earth mining area	D in g n a n C o u n t y, Ji a n g xi P r o v i n c e
28	Liangshan–Gulou rare earth mining area	W u p i n g C o u n t y a n d S h a n g h a n g C o u n t y in F uj ia n P r o



Appendix 4 Minimum Mining Scale Design Standards for Key Mineral Species (35 Species)

Mineral name	Unit / year	Large	Medium	Small
Coal (underground mining / open pit mining)	10,000 tons of raw coal	120/400	45/100	30/30
Iron (underground mining / open pit mining)	10,000 tons of ore	100/200	30/60	5/5
manganese	10,000 tons of ore	10	5	2
chromium	10,000 tons of ore	10	5	2
copper	10,000 tons of ore	100	30	3
lead	10,000 tons of ore	100	30	3
zinc	10,000 tons of ore	100	30	3
Tungsten	10,000 tons of ore	80	40	5
tin	10,000 tons of ore	100	30	3
molybdenum	10,000 tons of ore	100	30	3
Bauxite	10,000 tons of ore	100	30	10
nickel	10,000 tons of ore	100	30	3
antimony	10,000 tons of ore	100	30	3
Light rare earth	10,000 tons of ore	100	50	15
Heavy rare earth	10,000 tons of ore	100	50	10
Gold (rock gold)	10,000 tons of ore	15	6	3
Phosphorus (underground mining / open pit mining)	10,000 tons of ore	100/100	50/50	10/15
potassium salt	10,000 tons of ore	30	5	3
pyrite	10,000 tons of ore	50	20	5
Boron ( B2O3 )	10,000 tons of ore			5
barite	10,000 tons of ore	10	5	3
Fluorite ( CaF <sub>2</sub> )	10,000 tons of ore	10	8	3
Limestone (cement / other)	10,000 tons of ore	100/100	50/50	30/20
Natural quartz sand for metallurgy and cement	10,000 tons of ore	60	20	10
Quartzite and quartz sand for glass, ceramics, etc.	10,000 tons of ore	30	10	5
Kaolin	10,000 tons of ore	10	5	3
plaster	10,000 tons of ore	30	20	5
talc	10,000 tons of ore	10	8	3
Graphite (crystalline / cryptocrystalline)	10,000 tons of minerals / ores	1/10	0.6/8	0.3/5
Mica (industrial raw material mica)	ton			2
asbestos	10,000 tons of asbestos	2	1	0.5
Bentonite	10,000 tons of ore	10	5	3
Clay for bricks and tiles	10,000 tons of ore	30	13	6
Building stone	10,000 cubic meters	10	5	1.5
Facing stone	10,000 cubic meters	1	0.5	0.3

Appendix 5 Key Exploration Areas for Important Mineral Resources (297)

Mineral Type	name
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uranium mines -29	Dongsheng, Tongliao, the central and northern Erlian Basin, Tamusu, and Hongshanzi in Inner Mongolia; the southern edge of the Ili Basin, the southwestern Tuha Basin, Xuemistan, and the eastern Junggar Basin in Xinjiang; Lianshanguan in Liaoning; Longshou Mountain in Gansu; Lantian, Binxian–Linyou, Shangzhou–Danfeng–Shangnan in Shaanxi; Xiangshan, Taoshan, Baimianshi, Hecaokeng, Shengyuan in Guixi, and Dongkeng–Baofengyuan in Xiushui in Jiangxi; the central Zhuguang Mountains in Hunan; the southern Zhuguang Mountains, Heyuan, and Guidong in Guangdong; Miaoer Mountain in Guangxi; Shuangqiao–Xinlu in Zhejiang; Guyuan and Qinglong in Hebei; and Ruoergai in Sichuan.
iron ore -30	Eastern Hebei; Lanxian–Loufan, Fanshi–Daixian in Shanxi; Anshan–Benxi, Jianping–Ningcheng–Xiaojiayingzi in Liaoning; Banshigou in Baishan City, Jilin; Ningzhen in Jiangsu; Huoqiu, Ma'anshan–Wuhu, Lujiang–Congyang in Anhui; Makeng–Datian Tangquan in Longyan, Fujian; Central Jiangxi; Dezhou–Laiwu–Zibo in Shandong; Wuyang–Xincai in Henan; Lianhuashan–Tieshan and Huangmei in Ezhou, Hubei; Panxi in Sichuan; Coqen Nixiong in Tibet; Xiding–Lancang–Jinghong in Menghai, Yunnan; Mianluening and Bijigou in Yangxian, Shaanxi; Yingmaotuo–Yushishan in Beishan, Gansu; Targou–Xiaoliugou in Subei; Xiaoshalong–Zhamash, Karquka–Galinge in Qinghai; Awulale in the Western Tianshan Mountains, Kala Dawan and Qimantag in the Altun Mountains, Tashkurgan and Tianhu in the Western Kunlun Mountains in Xinjiang
manganese ore -11	Taipinggou–Wafang in Lingyuan City, Liaoning Province; Longyuan–Debao Nawen in Tiandeng, Guangxi Province; Huayuan in Hunan Province; Changyang in Sichuan Province; Chengkou and Xiushan in Chongqing City; Songtao, Zunyi, and Changxing–Wanshan in Tongren, Guizhou Province; Boziguoer in Xinjiang Province and Malkantu–Muhu in the southwestern Tianshan Mountains.
chromite -2	Zhanang–Lang County, Tibet; Sartohai, Xinjiang
copper mines -46	Tongling, Anhui; Unugtu Mountain – Jiawula, the middle section of the Greater Khingan Range, the southern foot of the Greater Khingan Range, Huogeqi, Bainaimiao – Beluwutu – Bilihe, Hulunbuir, Inner Mongolia; Hongtou Mountain, Qingyuan, Liaoning; Duobao Mountain – Daxintun, Heilongjiang; Zijin Mountain, Longyan, Fujian; Dongxiang – Dexing, Jiurui area, Donggang Mountain – Tongshan, Taqian – Zhuxi – Fuchun, Jiangxi; Daye – Yangxin, Hubei; Anhua – Huaihua, Hunan; Yangchun, Xueshanzhang, Guangdong; Tangdan, Dongchuan, Yunnan; Geza, Shangri–La; Weishan – Yongping, Lanzhou Pingbaiyangping; Angren–Xietongmen, Mila Mountain, Shannan, Nyimu, Duolong, Yulong in Tibet; Baijiazui, Gongpoquan, Baiyinchang in Jinchuan, Gansu; Deerni–Shanggongma, Duocai–Dongmozha Zhao in Qinghai; Karatag, Suoerkuduk–Zhaheba in Hami, Narat Mountain in the Western Tianshan Mountains, Huangshan–Jingerquan in Hami, Yadun–Sareke in Wujiasa, Kumtag, Kulesay, Axitong, Baogutu, Karatongke, Ashele–Dolanasai, Tuwu–Yandong in Hami, Qionghaba, Sanchakou in Xinjiang
Bauxite -8	Yuanping–Ningwu, Huoxi–Hedong, Yangquan–Xiyang in Shanxi; Lizhuangzhai–Pingdingshan in Mianchi, Henan; Wulong–Nanchuan in Chongqing; Wuzhengdao, Qingzhen–Xiuwen in Guizhou; Guangnan–Qiubei–Yanshan in Yunnan
Lead–zinc mines	Sanhe, Dongwuqi, and Baiyin Chagan in Hulunbuir, Inner Mongolia; Qingchengzi in Liaoning; Tianbaoshan to Kaishantun

-42	in Jilin; Panhe and Luanchuan in Lushi, Henan; Changyang to Xuan'en in Hubei; Huayuan to Fenghuang and Yongshun in Hunan; Fankou in Shaoguan, Guangdong; Huanjiang Beishan and Wuxuan in Guangxi – the western edge of Dayao Mountain in Xiangzhou, Sichengling in Daxin – Xidaming Mountain in Long'an; Ningnan to Huidong and Baiyujia Village in Sichuan; Nayongzhi in Puding, Guizhou; Niujiaotang to Nanzhai in Duiyun; Jinding and Ludian to Qiaojia in Lanping, Yunnan, Baoshan–Longling, Luziyuan–Yungaojingcao in Zhenkang; Mangkam, Chagel, Qianglong, Zhaofayong–Ganzhongxiong, Pushangguo, Gongbujiangdajinda, and Zhaxikang in Shannan, Tibet; Changba in Gansu; Beiba, Fengtai area, and Zhen'an–Ningshan in Nanzheng, Shaanxi; Lvliangshan–Xitieshan, Tuotuohe in Qinghai; Huoshaoyun in Hotan County, Xinjiang; Xikunlun Chalukou–Tianshuihai, Mengku–Keketal, Xikunlun Pagoda Mountain, Xiaoturgen–Kumasu, Ulagan, and Caixia Mountain in Hami
Tungsten Ore -10	Chong–Yu–You in Jiangxi, Dahutang in Xiushui, Xianglu Mountain–Huangzhuping, and Pangu Mountain in Yudu; Larong in Tibet; Xiaoliugou in Gansu; Qimantag–Baigan Lake and Shalong in Xinjiang; Zhen'an County in Shaanxi; and the rice fields of Malipo South in Yunnan.
tin mines -14	Hunan's Chaling Xitian, Xianghualing–Qitianling, Tianlongshan–Xikuangshan, and the southwestern edge of the Hengyang Basin–Dayishan; Guangdong's southwest section of the Lianhuashan Fault Zone, Shaoguan Meihua, and Houpo'ao; Guangxi's Fuchuan–Hezhou–Zhongshan, Yuanbaoshan, and Nandan's Dachang–Mangchang; Yunnan's Maguan Dulong, Tengchong–Lianghe, Jinping–Gejiu; Xinjiang's Zuluhong
antimony ore -2	Xunyang Mansion–Qingtonggou, Shaanxi; Panshui River, Xinjiang
Molybdenum ore -10	Fengning, Xinglong Taiping Village, and Xuanhua Jiajiaying in Hebei; Chalukou in Songling District, Heilongjiang, Luming–Xiaoxilin in Yichun, and Yanshou (Bindong); Shapinggou in Jinzhai, Anhui; Xiaoqinling in Shaanxi, Nianzipeng in Ningshan–Muwangping in Zhen'an; Suyou River in Yumin, Xinjiang–Baishan in Hami–Eastern Gobi
nickel ore -4	Jilin's Hongqiling – Piaohechuan; Xinjiang's Ruoqiang North Mountain, Baixintan – Lubei; Qinghai's Xiari Hamu
lithium ore -7	Kangding–Daofu–Yajiang, Maerkang–Jinchuan, and Zhawulong in Sichuan; Longmu Co–Buer Co, Beerze Co–Dawa Co, Bandao Lake–Yagencuo, Ruoshuiquan–Shuoer Lake in Tibet
gold mine -57	Southern Chifeng, Inner Mongolia; Gaizhou–Xiuyan, Dandong Wulong, Beipiao Baoguoalao, Liaoning; Xiaoxinancha–Nongping, Haigou–Jiapigou, Liudaogou, and Gumaling, Hunchun, Jilin; Shabaosi, Mohe, Heilongjiang; Baoxinggou, Laozhashan–Yangbishan, Dongning, Dong'an–Tangwanghe; Longyou, Suichang, Zhejiang; Xiuning–Shexian, Anhui; Shuangqishan–Dongyang, Dehua, Fujian; Yinkeng, Yudu, Jiangxi; Qingtang, Ningdu; Muping–Rushan, Laizhou–Zhaoyuan, Shandong; Xiaoqinling, Xiong'ershan–Waifangshan, Tongbai, Henan; Lianyungshan, Liuyang–Liling Guanzhuang, Hunan; Huangling, Shewushan–Huangling, Jiayu, Hubeikou–Gaoqiaopo, Yunxi; Hetai, Guangdong; Pingnan, Guangxi – Zhaoping, Fengshan Jinya; Changjiang in Hainan – Dongfang; Lannigou in Zhenfeng, Guizhou – Ceheng Yata, Zhenfeng – Pu'an; Zhenyuan in Yunnan – Mojiang, Beiya in Heqing, Niukong in Lvchun; Jinlongshan in Zhen'an, Shaanxi, and northern Ankang; Zhaishang in Minxian, Gansu – Mawu, Yawan – Daqiao, Liangdang – Chengxian, Jiagantan – Hanzigou, Dashui in Maqu – Lalma in Luqu; Gouli in



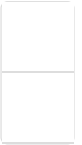


	Qinghai – Kangdenongshe, Wulonggou – Kaihuangbei, Qiuzhi – Zhama, Kunlun River – Xueshui River; Kanggurtag, Ashawayi, Wutonggou, Shuangquan, Yajiang – Northern Himalayas, Kala Bay in the Altun Mountains, Nalati Mountain in the Western Tianshan Mountains, Kateba Asu, Yemaquan, Hongshijing – Baiyiquan
Silver Mine –5	Siping Mountain Gate in Jilin; Lengshuikeng in Guixi, Jiangxi; Weiquan, Jiamante, and Qiongkuduke in Xinjiang
Diamond ( 2 )	Wafangdian, Liaoning; Mengyin, Shandong
Graphite Ore ( 1 )	Zamu Aobao–Tebai, Alxa Right Banner, Inner Mongolia
potassium salt –8	Jiangling, Jingzhou, Hubei; Tingzipu, Longhui, and Banqiao, Sichuan; Yanpan, northern Shaanxi; Gasikule–Lenghu, Yiliping–Hobson, Qinghai; Lop Nur, Xinjiang
Phosphate rock –9	Fushun–Qingyuan in Liaoning; Lianyungang–Sihong in Jiangsu; Hefeng–Dongshanfeng in Hunan; Mabian–Leibo in Sichuan; Kaiyang and Weng'an–Fuquan in Guizhou; Kuruktag, Korguqin, and Kepingtag in Xinjiang

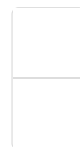
Appendix 6 Key Mining Geological Environment Management Areas (524)

province	County (district, city)
Tianjin ( 1 )	Ji County
Hebei ( 10 )	Jingxing Mining District, Shijiazhuang; Guzhi District and Luan County, Tangshan; Funing District, Qinglong Manchu Autonomous County, and Changli County, Qinhuangdao; Xuanhua District, Xihuayuan District, and Huailai County, Zhangjiakou; Sanhe City, Langfang
Shanxi ( 27 )	Gujiao City, Taiyuan; Zuoyun County, Hunyuan County, and Lingqiu County, Datong; Pinglu District and Shanyin County, Shuozhou; Yuanping City, Ningwu County, and Baode County, Xinzhou; Meng County and Pingding County, Yangquan; Shouyang County, Lingshi County, and Jiexiu City, Jinzhong; Changzhi County, Xiangyuan County, and Lucheng City, Changzhi City; Zezhou County, Yangcheng County, and Gaoping City, Jincheng; Liulin County, Xiaoyi City, and Lan County, Lüliang; Xiangning County, Pu County, and Hongdong County, Linfen; Hejin City, Yuncheng
Inner Mongolia ( 26 )	Xincheng District, Huimin District, and Shimot Left Banner of Hohhot; Tumot Right Banner, Shiguai District, Bayan Obo District, and Dalhan Maoming Anlianhe Banner of Baotou; Haibowan District, Wuda District, and Hainan District of Wuhai; Yuanbaoshan District of Chifeng; Holingol City of Tongliao; Zhalaينوer District of Manzhouli; Dongsheng District, Dalat Banner, Ejin Horo Banner, Jungar Banner, and Otog Banner of Ordos; Xilinhot City and West Ujimqin Banner of Xilingol League; Fengzhen City, Xinghe County, Chahar Right Rear Banner, and Jining District of Ulanqab; Urad Rear Banner of Bayannur; Alxa Left Banner of Alxa League
Liaoning ( 15 )	Kangping County, Shenyang; Dengta City and Gongchangling District, Liaoyang; Fuxin City; Fushun City; Pingshan District and Xihu District, Benxi City; Nanpiao District and Lianshan District, Huludao City; Zhen'an District and Fengcheng City, Dandong City; Beipiao City, Chaoyang City; Qianshan District and Haicheng City, Anshan City; Dashiqaio City, Yingkou City
Jilin ( 7 )	Dunhua City and Hunchun City in Yanbian Korean Autonomous Prefecture; Erdao District in Changchun City; Jiangyuan District and Changbai County in Baishan City; Huinan County in Tonghua City; Jiaohe City in Jilin City
Heilongjiang ( 25 )	Acheng District, Harbin; Nenjiang County, Heihe; Didao District, Chengzihe District, Hengshan District, Lishu District, Mashan District, and Jidong County, Jixi; Lingdong District, Sifangtai District, Jixian County, Baoshan District, and Baoqing County, Shuangyashan; Cuiluan District, Youhao District, Meixi District, and Wuying District, Yichun; Xing'an District and Gongnong District, Hegang; Xinxing District, Qitaihe; Linkou County, Mudanjiang; Mohe County, Huma County, Jiagedaqi District, and Tahe County, Greater Khingan Range

Jiangsu ( 19 )	Pei County, Tongshan District, Jiawang District, and Juning County of Xuzhou City; Haizhou District, Lianyungang District, and Guanyun County of Lianyungang City; Xuyi County of Huai'an City; Liuhe District, Pukou District, Qixia District, and Jiangning District of Nanjing City; Dantu District, Danyang District, and Jurong City of Zhenjiang City; Jintan District and Liyang City of Changzhou City; Yixing City and Jiangyin City of Wuxi City
Anhui ( twenty three )	Duji District, Xiangshan District, Lieshan District, and Suixi County of Huaibei City; Yushan District, Bowang District, and Dangtu County of Ma'anshan City; Xiejiadi District, Datong District, Bagongshan District, Panji District, and Fengtai County of Huainan City; Yongqiao District and Xiao County of Suzhou City; Yingshang County and Yingdong District of Fuyang City; Tongguanshan District, Shizishan District, and Tongling County of Tongling City; Mengcheng County, Woyang County, and Lixin County of Bozhou City; Huaining County of Anqing City
Fujian ( 17 )	Gutian County, Ningde City; Luoyuan County, Lianjiang County, and Jin'an District, Fuzhou City; Xinluo District, Yongding District, Zhangping City, Liancheng County, and Changting County, Longyan City; Shishi City, Nan'an City, Jinjiang City, Anxi County, and Dehua County, Quanzhou City; Datian County, Yong'an City, and Youxi County, Sanming City
Jiangxi ( 25 )	Leping City, Jingdezhen; Fenyi County, Xinyu City; Xiangdong District, Shangli County, and Luxi County, Pingxiang City; Yuanzhou District, Fengcheng City, and Gao'an City, Yichun City; Jishui County, Yongxin County, and Anfu County, Ji'an City; Guixi City, Yingtan City; Dexing City, Wannian County, and Qianshan County, Shangrao City; Xingzi County and Ruichang City, Jiujiang City; Dongxiang County, Fuzhou City; Ganxian County, Xinfeng County, Dayu County, Anyuan County, Longnan County, Yudu County, and Xunwu County, Ganzhou City
Shandong ( twenty one )	Huangdao District, Laixi City, and Pingdu City in Qingdao; Zhangdian District and Zhoucun District in Zibo City; Tengzhou City and Xuecheng District in Zaozhuang City; Muping District and Fushan District in Yantai City; Anqiu City and Qingzhou City in Weifang City; Jiaxiang County and Zoucheng City in Jining City; Xintai City and Feicheng City in Tai'an City; Huancui District in Weihai City; Ju County in Rizhao City; Laicheng District in Laiwu City; Mengyin County and Pingyi County in Linyi City; Juye County in Heze City
Henan ( twenty three )	Xichuan, Tongbai, and Fangcheng counties of Nanyang; Hebi; Yuzhou and Xiangcheng counties of Xuchang; Xin'an County of Luoyang; Gongyi, Xinmi, and Dengfeng of Zhengzhou; Anyang County and Linzhou of Anyang; Fengquan District and Huixian of Xinxiang; Jiaozuo; Shanxian, Mianchi, and Yima of Sanmenxia; Yongcheng of Shangqiu; Xinyang; Ruzhou and Wugang of Pingdingshan; and Biyang County of Zhumadian.
Hubei ( 26 )	Wuhan East Lake New Technology Development Zone; Daye City and Yangxin County in Huangshi City; Echeng District in Ezhou City; Yiling District, Xingshan County, Yuan'an County, Changyang County, and Yidu City in Yichang City; Xiangcheng District and Baokang County in Xiangyang City; Dongbao District and Duodao District in Jingmen City; Maojian District and Danjiangkou City in Shiyan City; Enshi City, Jianshi County, and Xianfeng County in Enshi Prefecture; Yunmeng County, Yingcheng City, Dawu County, and Xiaochang County in Xiaogan City; Chibi City in Xianning City; Wuxue City in Huanggang City; Songzi City in Jingzhou City; Shennongjia Forest District
Hunan ( 25 )	Lingling District and Lengshuitang District of Yongzhou City; Xiangtan County and Yuhu District of Xiangtan City; Shaodong County and Shaoyang County of Shaoyang City; Linwu County, Guiyang County, and Yizhang County of Chenzhou City; Lianyuan City, Xinhua County, and Lengshuijiang City of Loudi City; Linli County and Shimen County of Changde City; Changning City and Hengshan County of Hengyang City; Pingjiang County of Yueyang City; Anhua County and Heshan District of Yiyang City; Liuyang City of Changsha City; Huayuan County of Xiangxi Autonomous Prefecture; You County of Zhuzhou City; Huitong County and Xupu County of Huaihua City; Cili County of Zhangjiajie City
Guangdong ( 7 )	Renhua County and Qujiang District of Shaoguan City; Yuncheng District and Yun'an County of Yunfu City; Yangshan County and Yingde City of Qingyuan City; Lianping County of Heyuan City
Guangxi ( 32 )	Yanshan District, Xing'an County, Quanzhou County, Gongcheng County, Lipu County, and Yangshuo County of Guilin; Liunan District, Chengzhong District, Yufeng District, Luzhai County, and Rong'an County of Liuzhou; Jiangzhou District, Daxin County, Pingxiang City, Tiandeng County, and Fusui County of Chongzuo; Pinggui Administrative District and Zhongshan County of Hezhou; Dahua County, Bama County, and Nandan County of Hechi; Gangbei District, Guiping City, and Pingnan County of Guigang; Wuxuan County, Xiangzhou



	County, and Heshan City of Laibin; Yuzhou District and Luchuan County of Yulin; Jingxi County and Tianyang County of Baise City; and Hepu County of Beihai.
Hainan ( 4 )	Changjiang Li Autonomous County; Sanya City; Haikou City; Ding'an County
Chongqing ( 17 )	Beibei District; Jiulongpo District; Shapingba District; Dadukou District; Yubei District; Qijiang District; Nanchuan District; Rongchang District; Xiushan County; Chengkou County; Nan'an District; Banan District; Yongchuan District; Fengjie County; Hechuan District; Changshou District; Kai County
Sichuan ( twenty two )	Huaying City, Guang'an City; Gulin County and Xuyong County, Luzhou City; Yunlian County, Xingwen County, and Gong County, Yibin City; Jianwei County, Leshan City; Wangcang County, Guangyuan City; West District, Miya County, and Yanbian County, Panzhihua City; Huili County, Huidong County, and Mianning County, Liangshan Prefecture; Jiuzhaigou County, Aba Prefecture; Kangding City, Ganzi Prefecture; Mianzhu City, Deyang City; Baoxing County and Shimian County, Ya'an City; Da'an District and Gongjing District, Zigong City; Jiangyou City, Mianyang City
Guizhou ( 20 )	Kaiyang County, Guiyang; Honghuagang District, Xipu District, and Wuchuan County, Zunyi; Bijiang District and Wanshan District, Tongren; Qixingguan District, Dafang County, Weining County, Hezhang County, Zhijin County, and Nayong County, Bijie; Shuicheng County, Zhongshan District, Pan County, and Liuzhi Special Zone, Liupanshui; Xixiu District and Pingba County, Anshun; Weng'an County and Fuquan City, Qiannan Prefecture
Yunnan ( 20 )	Dongchuan District and Jinning County, Kunming; Qilin District, Qujing; Yimen County, Chengjiang County, and Yuanjiang County, Yuxi; Longyang District and Tengchong City, Baoshan; Zhenxiong County, Zhaotong; Lancang County, Pu'er; Gejiu City, Kaiyuan City, and Yuanyang County, Honghe Prefecture; Malipo County, Maguan County, Guangnan County, and Funing County, Wenshan Prefecture; Lianghe County, Dehong Prefecture; Lanping County, Nujiang Prefecture; Shangri-La City, Diqing Prefecture
Tibet ( 8 )	Chengguan District, Doilungdegen District, and Liuwu New District of Lhasa; Angren County and Sangzhubzong District of Shigatse; Karuo District of Qamdo; Bayi District of Nyingchi; and Nadong County of Shannan Prefecture.
Shaanxi ( 25 )	Yuyang District, Shenmu County, Fugu County, and Hengshan County in Yulin City; Pucheng County, Baishui County, Heyang County, Chengcheng County, Hancheng City, Tongguan County, and Huayin City in Weinan City; Huangling County in Yan'an City; Wangyi District and Yaozhou District in Tongchuan City; Bin County and Jingyang County in Xianyang City; Feng County and Taibai County in Baoji City; Lueyang County, Ningqiang County, and Mian County in Hanzhong City; Xunyang County in Ankang City; Shanyang County, Zhashui County, and Zhen'an County in Shangluo City
Gansu ( 20 )	Honggu District and Qilihe District of Lanzhou City; Yongchang County of Jinchang City; Pingchuan District of Baiyin City; Tianzhu County of Wuwei City; Shandan County of Zhangye City; Huating County, Kongtong District, and Chongxin County of Pingliang City; Yumen City of Jiuquan City; Min County of Dingxi City; Cheng County, Hui County, Wen County, Li County, Xihe County, and Liangdang County of Longnan City; Maqu County, Hezuo City, and Luqu County of Gannan Prefecture
Qinghai ( 12 )	Huangzhong County, Xining City; Ledu District, Haidong City; Qilian County, Menyuan County, and Gangcha County, Haibei Prefecture; Zeku County, Hainan Prefecture; Qumalai County, Chengduo County, and Zhiduo County, Yushu Prefecture; Tianjun County, Delingha City, and Golmud City, Haixi Prefecture
Ningxia ( 13 )	Xingqing District, Xixia District, Lingwu City, Yongning County, and Helan County of Yinchuan City; Litong District, Qingtongxia City, and Yanchi County of Wuzhong City; Pengyang County of Guyuan City; Zhongning County of Zhongwei City; Dawukou District, Huinong District, and Pingluo County of Shizuishan City
Xinjiang ( 34 )	Midong District, Urumqi County, and Dabancheng District in Urumqi; Chabuchaer County, Nileke County, Yining County, Gongliu County, and Huocheng County in Ili Prefecture; Korla City, Hejing County, and Luntai County in Bayingolin Mongol Autonomous Prefecture; Altay City, Fuyun County, and Qinghe County in Altay Prefecture; Wusu City, Shawan County, Zhali County, Emin County, and Hoboksar County in Tacheng Prefecture; Fukang City, Changji City, and Jimsar County in Changji Prefecture; Toksun County, Gaochang District, and Shanshan County in Turpan City; Hami City and Balikun County in Hami Prefecture; Hotan City, Hotan



County, and Pishan County in Hotan Prefecture; Wujia County in Kizilsu Kirgiz Autonomous Prefecture; Wensu County, Kuche County, and Baicheng County in Aksu Prefecture.

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