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提升青海省循环经济政策建议

Policy Notes
政策建议

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For Executing Agency: Qinghai Provincial Finance Department
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Policy Advice on
Promoting the Circular Economy in Qinghai Province

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Project Management Office

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Promoting the Circular Economy in Qinghai Province

Facing the period of "the Thirteenth Five-Year Plan", Qinghai Province has made a series of deployments toward the important strategic goal of constructing circular economy pilot zones, based on the special provincial situation characterized with rich resources but vulnerable ecology. Policy advice on Promoting the Circular Economy in Qinghai Province is an ADB TA project jointly implemented by the Ministry of Finance and the Qinghai Provincal Government of the PRC. The project is aimed at conducting in-depth research and putting forward policy suggestions for optimizing the development of the circular economy pilot zones in Qinghai from the aspects of industry, economy, talents and science & technology. Through open competitive bidding procedure, the research project was awarded to the Qinghai Provincial Administration Institute. The Institute has teamed up experts to conduct one-year research, producing 3 research reports, namely, *Assessment and Optimal Improvement of the Chaidamu Circular Economy Pilot Zone*, *Integrated Evaluation of the Circular Economy Development Level in Qinghai* and *Developing a Policy System for Promoting the Circular Economy Development in Qinghai*. In the study, the research group strictly follows the ADB's technical and procedural requirements, mainly on the development of industrial circular economy in Qinghai province.

Based on the studies, the research team has developed the following policy suggestions:

I. Guidelines, Fundamental Principles and Overall Objectives

The research team holds that it is important to adequately implement 5 primary development concepts such as innovation, green, coordination, opening and sharing, to accommodate the economic development trends under the new normal and greatly push forward the supply-side structural reforms, in order to meet the new requirements of circular economy development. On December 15, 2013, the Qinghai Provincial Party Commission and the Qinghai Provincial Government issued a document entitled *Action Plan for the Construction of National Circular Economy Pilot Zones*. The existing performance criteria, promotional steps and objectives and missions do not respond to those new requirements well. Therefore, it is essential to further deepen the current guidelines, fundamental principles and overall objectives so as to provide a better direction for the circular economy development in Qinghai from the macro policy perspective.

1. Guidelines: It is of great importance to adequately implement the decisions of the 18th National Congress of the Communist Party of China (CPC) and the 3rd, 4th, 5th and 6th plenary sessions of the CPC Central Committee. In light of those decisions, there is big need to firmly establish a new norm of economic, intensive and recycling use of resources through applying five development concepts such as innovation, coordination, green, opening and sharing. It is essential to develop the circular economy by centering on increasing resource outputs of the whole society as well as innovations in science & technology, production models and industrial activities. In addition, it makes perfect sense to stimulate new motivations through system and institutional innovations to speed up Qinghai's transformation towards a green and circular society, and lay a solid foundation

for the full establishment of a Xiao Kang society and building a new Qinghai that enjoys prosperity, civilization, harmony and beauty.

2. Fundamental Principles: 1) **Upholding the strategy of ecological protection first.** While running the idea of ecological civilization through the whole course of circular economy development, it is important to take circular economy development as an important approach to realizing the ecological civilization, thus promoting the coordinated development of economy and ecological environment. It can only be achieved by sparing no effort to promote green development, achieving the virtuous relations among ecology, production and living and accelerating the formation of recycle-based modes of production and living. 2) **Firmly establishing a new notion of resources.** It is necessary to implant the new notion of economical, intensive and recycling use of resources by earnestly promoting energy conservation, water-saving, and more efficient use of land and mineral resources, as well as establishing circular connection of systems of production and living. 3) **Focusing on innovations in systems and mechanisms.** It is wise to get informed of current new trends in science & technology and industries and give more attention to the reforms in system and mechanism in relation to the circular economy development, attaching greater importance to innovations in management mode, technology and industry activities, and reinforcing effective systems and policies, thus providing a supportive environment and a powerful driving force for circular economy development. 4) **Developing an extensive social joint force.** There needs to be a strengthening of the government's inducing role in the circular economy development, combined with a bottom-up approach for circular economy development. It makes sense to identify the main players in the enterprise sector, and fully deploy the market force in pushing forward the new initiatives in the development of circular economy. In addition, it is important to promote public participation and media publicity and education to create a positive atmosphere.

3. Development Objectives: By 2020, in Qinghai province, the operational mechanisms and support systems regarding circular economy development would have been fully established; recycle-based industrial system initially created; resource use efficiency obviously increased; sustainable development capacity remarkably enhanced; green consumption mode widely popularized; and overall development level of circular economy elevated to the top list. In so doing, the province would have set up a paradigm or model for the whole nation or similar regions in terms of park construction, integrated use of resources, clean energy, green development and institutional building through its well-established national circular economy pilot zones.

The Xining (National) Economic Technology Development Zone (XETDZ), the Chaidamu Circular Economy Pilot Zone (CCEPZ) and the Haidong Industrial Park (HIP) are the principal bodies of circular economy development in the whole province. Specifically, they are expected to upgrade the integrated development and use of salt lake resources as a national strategy, through establishing the largest circular industrial base of salt lake engineering nationwide. They will also develop a nationally influential industrial base of renewable energy by constructing the largest base of photovoltaic power generation and important bases of hydropower nationwide, enabling the province to maintain its national leading position in renewable energy. Statistically, these zones are expected to reach above 90% of value additions from the circular economy industries

and 40% of renewable energy as a proportion of total energy production, thus enabling green development to reach the national leading level. In addition, these zones are expected to create and refine evaluation methods, system of legal codes and economic policies catering to circular economy requirements, therefore, to provide important institutional safeguards for the construction of circular economy pilot zones in Qinghai.

II. Suggestions for Optimizing Industrial Policies

The research team thinks that as a new type of higher industrial morphology, circular economy has its core of constructing a new type of industrial system characterized with innovation, opening, integration, clustering and sustainability. Qinghai Province has issued relevant planning and policy documents to make programs and arrangments for industry, agriculture, and service sectors and key ecological industry parks in line with the circular economy. However, there have been common issues like incomplete production chains and weak clustering effect. There is a need to produce joint forces at the micro (enterprise), mezzo (industry) and macro (region) levels, to effectively carry out structural reforms and greatly promote industrial upgrading, so as to develop a new industrial system that is green, low-carbon, recycle, and innovation driven.

1. **Optimizing Industrial Organization Policies.** It is important to promote technological innovation of enterprises to achieve industrial upgrading. In terms of design of industrial organization policies, full consideration must be given to the balance between competitive benefits and scalable benefits, and the market potential of technology innovation of enterprises. In Qinghai, it is essential to promote close linkages among SMEs (Small and Medium Enterprises) and big corporations and corporate groups through cooperative productions or collaborations in the process of circular economy development. This will enable SMEs to take full advantage of the spillovers from big corporations and corporate groups in the technological improvement and innovation, and truly achieve the industrial coupling effect of circular economy and speed up the industrial transformation.

2. **Promoting the Synergetic Development of Industrial Parks.** There need to be a clarity in terms of roles and responsibilities of the government and the market in the development of circular economy. There should also be clear development priorities for each industrial park, characterized with clear orientation and focus, distinctive features, development stages and complementarities to other parks. The parks should make good use of the “negative list” to develop a market entry mechanism. In the meanwhile, it is necessary to form an effective mechanism of cooperation among all levels of governments to minimize internal frictions, arising from the industrial homogenous competition among different park administrations in the course of business attraction.

3. **Prioritizing the Support of SMEs.** Owing to limited scale, technology and capital, SMEs have become a weak link in the circular economy development in Qinghai. In the design of policies for circular economy development, the government must take into consideration the setup of “linkage” or “coupling” policies, to promote the business synergies or clustering big and small enterprises to extend the local supply chains. The government can also use partial tax rebate and pricing of big enterprises’ by-products and by-materials and preferential concessions to support SMEs.

4. **Accelerating the Development of a New Industrial System.** It is advisable to further accelerate the construction of a complete recycle-based industrial system, by extending industrial chains and pushing forward recycling activities, to enable industrial solid wastes to achieve over 60% of integrated use efficiency. It is also important to speed up the establishment of a recycle-based agricultural and livestock system where multiple sectors like agriculture, forestry, livestock and fishing coexist. This can be achieved through building systems of recycling use of rejected materials from farm cultivation and livestock raising, and promoting thrifty use of agricultural resources, clean production, circular industrial chains and recycling treatment of wastes. There is also a need to accelerate the creation of a recycle-based service system by promoting "green" service organizations, clean service process, and renewable resource refining system, where the recycling, dismantling, assorting, processing and trading of renewable resources are integrated into one.

III. Suggestions for Optimizing Economic Policies

The research team argues that, "Circular economy has relatively high demands for equipment, raw materials and ideas, and enterprises as main market players generally do not consciously and actively implement circular economy as a result of huge operational costs. Therefore, at the current stage, the promotion of circular economy development in Qinghai must be carried out mainly by policy incentives. It is essential to speed up the legislative process of local legal codes of circular economy; to implement and refine policy measures of industry, investment, taxation, pricing and finance regarding the promotion of circular economy development; to encourage financing institutions to develop green financing and leverage the power of "Internet + Financing"; and to induce social capital into circular economy through such modes as PPP and the third party service".

1. Refining Finance Policies. The provincial Finance Bureau needs to set up special funds to promote the circular economy development. The funds can be used for financing activities such as demonstration and pilot projects of circular economy, development and utilization of new energy and renewable energy, extension of new products and new technologies involving integrated use of resources, as well as publicity campaign, education, training, honoring and awarding activities with respect to circular economy development. Depending on specific situations, policies such as project fund support, loss allowance and government concessions can be adopted for provincial enterprises involved in the circular economy pilot. Priority should be placed on projects that fall into the category of circular economy. In the promotion of projects, technologies and product research & development related to circular economy, the policy of early stage R&D grant can be adopted. To encourage the development of equipment and technological processing or improvement with regard to recycling of rejected materials, public allowance for research and experiment could be considered. For those enterprises that apply sophisticated energy-saving equipment, it is advisable to carry out the policy of equipment investment allowance.

2. Updating Investment and Financing Policies. It is important to recognize circular economy development as a priority field for government investment and intensify efforts in financial support. Support policies such as direct investment, capital allowances and

discounted loans can be provided for those significant projects related to circular economy, technological development or industrial demonstration. It is necessary to develop policies which can induce enterprises and social capital into the circular economy projects. There is also a need to conduct various forms of international exchange and cooperation, and to widen international assistance channels, including international grants, technical assistance and concessional loans, in order to better support the development of circular economy.

3. **Improving Pricing Policies.** There needs to be an improvement of pricing and charging policies to allow a bigger role of the market in the allocation of resources. This include speeding up the implementation of Amphitheatre-oriented, quality-based water pricing system for residential use water, gradually raising the criterion of urban sewage disposal charges, identifying reasonable recycled water prices, increasing the reuse level of water resources and promoting the recycling use of reclaimed water. It can also be realized by further strengthening peak-valley (time-of-use) electricity pricing and strictly implementing the policy of differential electricity prices especially for those projects either outdated or restricted by the state, as well as for those enterprises with high energy consumption.

4. **Enhancing Government Procurement Policies**. Policy measures on green procurement should be studied and developed to promote products which contribute to the conservations of electricity, oil, coal, water, material and integrated use of resources. Government must give priority to the procurement of green products and discuourage the use of one-off products, in an attempt to develop a healthy, thrifty and civilized living and consumption style in the whole society.

5. **Improving Wastes Use Policies.** Enterprises should be encouraged to use resources in a circular way and develop an industry that maximize the possibility resource reuse. Wastes discharging units should provide necessary conditions for users to reuse abandoned materials. For those rejected materials that are not processed, no charges should be made for those who use them; for those processed and treated, certain charges can be applied to the users as negotiated and agreed between both sides, in the principle of making it more beneficial to the users. The government financed projects and government allowances should be made good use of, and give priority to those firms that use abandoned materials to make qualified products. Such enterprises can also enjoy certain tax incentives due to their contribution to the green economy.

IV. Suggestions for Optimizing Talents Policies

The research team believes that, “Since human resource is the most positive and active factor in the development of circular economy, talents policies definitely play a pivotal role in the success of circular economy. Currently, in Qinghai province, there is only a small number of circular economy talents with low quality. There is a need to produce joint force in the areas of talents attraction, development and allocation through establishing a market-based talents management system, implementing major talents development projects. Such measures would help turn various talents into an industrial core competitive force and more effectively promote the sound development of circular economy in Qinghai”.

1. **Empowering Human Force.**It is important to start the implementation of "Qinghai Thousand High-Level Innovative Talents Program", and integrate other existing programs such as the "Kunlun Talents", "Kunlun Scholars" and "Small Talents" programs so as to fully leverage the limited resources to build a sizable force of innovative talents, who can help fill the skills shortage for the circular economy. It is expected that the province will have developed a total of around 30,000 technical talents by 2020. Furthermore, it is necessary to empower the entrepreneurs working in the field of circular economy and build a public platform where enterprise executives, operators and managers can be trained, developed, recruited, evaluated and recommended. In addition, there is a need to develop a pool of professional talents, and attract around 100 leading talents of circular economy. Meanwhile, measures can be taken to encourage various talents to start businesses and carry out innovations at the grassroots level.

2. **Optimizing Human Resource Allocation.** Talents mobility mechanism needs to be created and well established to improve both the horizontal and vertical mobility and to facilitate circular economy talents to move freely among different units and regions. It is important to refine incentive policies related to salary, medical benefits, promotion and pension etc., to encourage professionals to do field work in Tibetan and other remote areas, and industrial parks. Talents exchange and counterpart assistance programs can be carried out between Xining, Haidong, the Qinghai Lake Area and the Qingnan Area, and the Counterpart Assistance Project of Talents Training for Qinghai Province should be continued.

3. **Creating an Environment of Talents Development and Promotion.** It is of great importance to refine the performance incentive mechanisms to create a environment in which all types of talents (regardless of age and gender) are encouraged to succeed. Moreover, there is a need to develop a merit-oriented and results-based talents evaluation system with respect to circular economy, and encourage people to involve in the circular economy by means of knowledge, expertise and management skills, and reward their work by market values. In addition, , there need to be substantial non-fiscal incentives to encourage people's devotion towards circular economy and make the profession as a "honorable profession".

4. **Establishing an Institutional System for Talents Clustering.** It is essential to form a healthy culture of honoring knowledge, talents and innovation and develop systems and mechanisms rewarding outstanding performances and achievements. Furthermore, it is wise to set up an open talents development system where educational training and practical internship are combined and provincial academic and professional development and interprovincial exchange and cooperation are all included. It should also encourage universities, academic research institutes and enterprises to set up internship bases and to support circular economy talents to conduct trainings at universities and research institutes nationwide. It is also useful to carry out the allocation policy tilted towards results transformation in respect of circular economy development and allocate more resources

(including human, physical and financial) to the innovative leading talents. Lastly, it makes sense to set up an "Talents Hunting Award" and to develop a catalog of rare and acutely needed talents.

V. Suggestions for Optimizing Science & Technology Policies

The research team believes that, "Innovation in science & technology is not only a fundamental condition but also an "accelerator" or "driver". The system of science, technology and innovation determines the capacity of industrial competition as well as the level of industrial chains and the extent of industrial integration with respect to circular economy. Therefore, it is essential to recognize the leading role of science, technology and innovation in the development of circular economy and develop an innovative system that has government support, market orientation, and active participation of research institutes, governments, industries, universities and consumers as well".

1. Enhancing the Fundamental Innovation Capacity. "Double Multiplications" projects and S&T "Small Grant" programs should be adopted for S&T and new technology firms. Large enterprises are encouraged to entice S&T leading talents and high-level innovation teams worldwide and form a number of strategic alliances for industrial technology innovation, centering around the development of circular economy. It is important to encourage enterprises to strengthen research collaborations with research institutes at home and abroad, universities nationwide and large corporate groups, especially in the circular economy industries. Ssupport should be given to joint research projects between higher learning institutions and enterprises as well as corporate projects of key technological improvement. It is also wise to set up a seed fund for innovations in emerging industries so as to support the development of new high-tech enterprises and S&T SMEs. In addition, researchers from universities and institutes should be encouraged to start businesses in the areas of circular economy.

2. **Strengthening Innovations in Priority Fields.** Emphasis should be placed on key technological breakthroughs in priority fields., especially the critical or common technologies in the strategically important industries. The key areas that need technological breakthroughs include high purification of lithium salt of salt lakes, industrial enhancement of lithium-ion battery and its key elements, in-depth processing of aluminum magnesium alloy, industrialization of advanced crystalline materials, research & development of phase transformation heat accumulation materials, development and application of magnesium salt building materials and composite materials, highland biological resources, intelligent manufacturing, industrialization of environment-friendly clothes, etc. All these would help industries in Qinghai to move up the value chains and develop a number of nationally influential circular economy industrial clusters. Support should also be provided to the research on dynamic changes in biodiversity in priority ecological areas, the highland ecological system restoration, and the protection and application techniques of fauna and flora resource with distinctive highland characteristics, which are near-extinction medical herbs.

3. **Reinforcing the Commercialization of S&T Achievements.** By 2020, the province will have more than 1000 S&T service agencies, with an ownership of 2 valid invention patents per ten thousand persons and the S&T support capacity for circular economy

development will be substantially enhanced. However, it is necessary to speed up the development of local legal system for promoting the commercialization of S&T achievements. It is also important to upgrade such platforms as new high-tech industrial development zones, agricultural S&T parks, S&T enterprise incubators and university S&T Parks, to enhance the level of labor division and collaboration as well as productive efficiency. In addition, there is a need to further develop the technology and stock equity markets, which can serve as a trading platform for technologies and intellectual property rights.

4. **Strengthening the Construction of Innovation Platforms.** By 2020, 5 national S&T innovation platforms will have been newly constructed, preliminarily forming a system of innovation adapted to the needs of industrial development and efficient integration of innovative resources. It is important to integrate the innovation resources of new high-tech zones or industrial parks to achieve the effect of clustering innovation. Specifically, it is necessary to accelerate the construction of the Qinghai National High-Tech Development Zone, Qinghai University National S&T Parks, the National Agricultural S&T Park, the Xining Zhongguancun S&T Outcomes Industrialization Base, the Haidong Zhongguancun S&T Park, but in an integrated way. It is also necessary to develop Xining and Geermu into innovative cities. The goal of these developments is to create a number of innovation bases and clusters in Qinghai, through integrated use of various innovation resources, development of professional or technological platforms, and introduction of specialized S&T service agencies and S&T financing institutions.

5. Refining the Mechanism of Opening and Exchange. It is of great importance to develop a highly integrated mechanism for open communication and collaboration, in order to generate interdisciplinary and inter-sectoral innovations through absorbing and using national and international innovative resources. Furthermore, it makes great sense to promote the opening of S&T programs by taking advantage of the circular economy development opportunity in Qinghai and strengthening international S&T collaborations. In addition, it is wise to reform the sharing mechanism of S&T facilities to allow the general public to have open access to basic research facilities, instruments and basic patent information, to maximize the effective use of S&T resources.

V. Suggestions for Optimizing Social Policies

The research team believes that, “Circular economy development is an undertaking that involves all sectors and all the stakeholders, thus calling for the concerted efforts of governments, enterprises and all citizens in the whole society. With the circular economy development in Qinghai entering the current stage, it is not enough to purely rely on the government’s strength to move forward, it is essential to depend on the whole society’s support and active participation. ”.

1. **Developing Multiple Incentives.** Incentives play an important role in the process of economic development. In pursuing circular economy, government needs to provide a series of incentive policies to incentivize people, with dual purposes of seeking the maximum economic benefits and maximum ecological benefits. Such policies play an especially important role at the initial stage of development. However, when circular economy development enters the take-offstage, it will rely less on fiscal incentives but on

other non-material incentives such as recognition reward, honorary titles, and a sense of fulfillment, etc.

2. **Promoting Sharing Economy.**

It is important to popularize the idea of sharing economy, encouraging public participation in the sharing. This can be achieved by supporting the shared use of households items, vehicles, office space, storage space as well as information. It is also necessary to encourage the development of professional knowledge sharing platforms, on-line items trading system and relevant information services. In addition, there need to be a strong social credit system and institutional security system.

3. **Encouraging Green Consumption.** It is essential to increase the supply and consumption of green products, by supporting their authentication, improving their labeling system, expanding their distribution channels, and encouraging consumers to buy and use them. There is also a need to advocate reasonable consumption instead of extravagant and wasteful consumptions. Limits should be set on excessive packaging and over-use of one-off items, and promote products related to energy and water conservation, green lighting, reproduction and re-use. Meanwhile, government needs to standardize the second-hand goods markets by strengthening relevant standards and normalize the market order.

4. **Promoting Green Buildings.** It is advisable to establish complete standards and norms of green buildings, and actively promote the design and construction of green buildings and the use of green building materials. More specifically, green building criteria should be adequately implemented in buildings of public institutions, schools and hospitals. It is reasonable to establish a province-wide system of energy consumption surveillance for large public buildings and to actively push municipalities and prefectures to build energy consumption surveillance platforms. For newly built buildings, energy-saving criteria should be strictly carried out -- for urban buildings, energy conservation standards are required to be met at 100% at the design stage, and energy-saving criteria should be enforced at 95% at the constructional stage. In general, energy efficiency improvement projects should be implemented for existing buildings, and energy conservation improvements projects be carried out for stocked buildings.

5. **Advocating Green Travelling.** Means of green travelling such as mass transit, bicycle-riding and walking shall be encouraged. The construction of large capacity mass transit infrastructure like urban railway transit, dedicated bus lanes and bus rapid transit (BRT) should be speeded up, and the construction of urban slow-pace system such as bicycle lanes and pedestrian paths also be strengthened, thus increasing the appeal of green travelling. In addition, energy-saving and environment-friendly transportation outfits or equipment should be extended; the construction of battery-charging stations for electrical-powered vehicles be accelerated; and the coverage of urban bicycle rental facilities be further increased, to form a good environment of green travelling.

6. **Developing a Recycling System.** It is necessary to standardize the trading markets of waste and old materials in municipalities like Xining, Haidong, Geermu and Delingha, scenic spots for tourism, and key towns of artery traffic lines, where idle equipment can be

leased out and old items can be traded. Major projects regarding trading markets of renewable resources and regenerative products, waste and old electric products and disassembled vehicles should be carried out. Facilities involving garbage collection, sorting, transport and landfill need to be upgraded; the construction of a system of recycling use of rural renewable resources be strengthened; and recycling stations in towns and villages, and recycling network of cruising collectors need to be developed.

7. **Establishing Circular Economy Communities.** It is important to establish model circular economy communities province-wide. There is a need to transform social living through more ecological services, to reduce energy consumption and household wastes discharge, and to completely promote rubbish assorting and treatment, thus increasing the recycling use efficiency in the whole society. Industrial waste water and domestic waste water should be collected and treated separately, and consumption of energy and natural resources decreased within the community, and eventually achieving the significant decrease of wastes discharge and great increase of ecological and healthy wastes treatment.

亚行技援：TA 8853-PRC

提升青海省循环经济政策建议

《提升青海省循环经济政策建议》

项目办公室

2017 年 2 月

面向“十三五”时期，青海立足资源富集和生态脆弱的特殊省情，把建设循环经济发展先行区作为重要的战略目标，作出系列部署。《提升青海省循环经济政策建议》是由财政部和青海省政府共同实施的亚洲开发银行技援赠款项目，旨在通过深入研究，从产业、经济、人才、科技等方面，为青海建设循环经济先行区提出优化建议。项目经公开招标，由青海省行政学院组建专家团队，进行了为期一年的研究工作。形成《柴达木循环经济试验区建设评估与改进优化》《青海省循环经济发展水平综合评价》《构建促进青海省循环经济发展政策体系》三项研究成果。在此基础上，课题组提出以下政策建议。课题组在研究中，严格遵循亚行的技术和程序要求，主要就青海省工业循环经济的发展进行深入研究。

一、关于指导思想、基本原则和总体目标

课题组认为，深入贯彻创新、协调、绿色、开放、共享五大发展理念，适应把握引领经济发展新常态、着力推进供给侧结构性改革，对循环经济发展提出新要求。2013 年 12 月 15 日，青海省委、省政府印发的《建设国家循环经济发展先行区行动方案》，所提出的总体要求、推进步骤和目标任务尚不能回应这些要求，需在已有基础上进一步深化指导思想、基本原则和总体目标，从宏观上为青海循环经济发展进一步指明方向。

指导思想：全面贯彻落实党的十八大和十八届三中、四中、五中、六中全会精神，深入贯彻习近平总书记系列重要讲话精神，以创新、协调、绿色、开放、共享五大发展理念为引领，牢固树立节约集约循环利用的新资源观，以提高全社会资源产出率为核心，以科技创新、模式创新和业态创新形成引领循环经济发展新动能，通过体制创新和制度供给激发循环经济发展新动力，加快推动全省经济社会绿色循环转型，夯实全面建成小康社会的资源环境支撑，为建设富裕文明和谐美丽新青海打下更加坚实的基础。

基本原则：坚持生态保护优先。把生态文明理念贯穿到循环经济发展全过程中，把循环经济发展作为实现生态文明建设的重要途径，着力打造绿色发展新优

势，实现生态、生产、生活联动发展，加快形成循环型生产方式和生活方式，促进经济社会与生态环境协调发展。牢固树立新资源观。落实节约集约循环利用的新资源观，全面推动能源节约，加强节水型社会建设，强化土地节约集约利用，加强矿产资源节约和管理，推进生产和生活系统循环链接，加快资源利用方式根本转变，大幅提高资源利用综合效益。注重创新体制机制。把握当今科技和产业变革方向，更加注重循环经济发展领域的体制机制改革，更加注重模式创新、技术创新和业态创新，进一步完善激励与约束相结合的体制机制，强化制度政策的有效供给，为循环经济发展提供良好环境和强大动力。广泛形成社会合力。强化政府在循环经济发展中的引导作用，完善统分结合、上下联动的循环经济发展的组织领导机制。明确企业作为循环经济发展的主体地位，利用市场机制充分调动企业发展循环经济的主动性和积极性。推动公众参与，加强宣传引导，营造良好氛围。

发展目标：到2020年，全省循环经济发展运行机制和支撑体系更加完善，循环型产业体系初步建立，资源利用效率明显提高，环境质量得到较大改善，可持续发展能力显著增强，绿色消费模式普及推广，循环经济总体发展水平走在前列，在园区建设、资源综合利用、清洁能源、绿色发展、制度建设等方面为国家或同类地区树立典范，建成国家循环经济发展先行区。

西宁（国家级）经济技术开发区、柴达木循环经济试验区和海东工业园建设全为全省循环经济发展主体。盐湖资源综合开发利用上升为国家战略，建成我国最大的盐湖化工循环产业基地；建设全国有影响力的新能源产业基地，建成全国最大的光伏发电基地和重要水电基地，保持全省可再生能源生产应用在国内领先地位；循环经济工业增加值占比达到90%以上，可再生能源占能源生产比重达到40%，绿色发展保持全国领先水平；建立和完善体现循环经济要求的考核办法、法规体系、经济政策，为循环经济发展先行区建设提供重要制度保障。

二、关于产业政策的优化建议

课题组认为，循环经济作为新型工业化的高级形态，其核心在于，构建具有创新性、开放性、融合性、集聚性和可持续性特征的新型产业体系。青海省通过相关规划和政策文件对循环经济工业、农业、服务业及重点生态产业园区作出谋

划布局。但普遍存在生产链延伸不够、共生耦合不强等问题。亟需在微观企业层面、中观产业层面和宏观区域层面共同发力，着力加强供给侧结构性改革，着力促进产业转型升级，推动形成绿色低碳循环、创新驱动、特色鲜明、效益显著的产业新体系。

一是优化产业组织政策。大力促进企业自身的技术改造和技术创新，在产业内部实现转型升级。必须从产业组织政策的设计上充分考虑竞争效益与规模效益的平衡，挖掘企业自身科技创新的市场潜力，并大力在全省范围内推进中小企业与大企业、企业集团通过专业化和协作生产在循环经济发展形成中紧密联系，从而在技术改造和技术创新中，使中小企业能够充分借力于大企业、企业集团，真正实现循环经济产业链延伸与耦合，完成产业的转型升级。

二是促进园区协同发展。厘清政府和市场在循环经济产业布局中的角色和定位，进一步明确园区内部、园区之间的发展定位、发展重点，形成定位清晰、特色突出、各有侧重、错位发展、优势互补的产业布局。各园区以客观、适宜、合法的“负面清单”确定市场的准入机制，同时，形成各级政府在循环经济发展中的协同机制，最大程度降低各园区管理部门在招商引资过程中因产业同质性相互竞争而形成的内耗。

三是重点扶持中小企业。中小企业受规模、技术和资金所限，成为青海省循环经济发展中的薄弱环节。政府在促进循环经济发展政策设计中，应当考虑“捆绑”政策设定，即为了促进循环经济产业链延伸和企业间共生耦合网络的加强，在主导企业和延伸、耦合企业之间形成公平合理的利益分配机制，通过税收返还、大企业副产品和废弃物定价机制以及其他政策倾斜，或引导大企业、企业集团通过优惠的让利合作机制，加大对中小企业的扶持力度。

四是加快构建新产业体系。进一步加快构建完整的循环型工业体系，延伸产业链条，推进循环化改造，使工业固体废物综合利用率达到60%以上。加快构建农林牧渔多业共生的循环型农牧业体系，建立种养业废弃物资源化利用制度，推动农业资源利用节约化、生产过程清洁化、产业链接循环化、废物处理资源化。加快构建循环型服务业体系，推进服务主体绿色化、服务过程清洁化，健全再生资源利用体系，构建起集回收、拆解、分拣、加工、交易于一体的再生资源回收利用体系。

三、关于经济政策的优化建议

课题组认为，循环经济对设备、材料、理念要求较高，市场主体因其运行成本大而往往不能形成主动和自觉，现阶段青海省促进循环经济发展应当以政策激励为主导。加快循环经济地方法规立法进程，落实完善促进循环经济发展的产业、投资、税收、价格、财政等政策措施，鼓励金融机构大力发展绿色金融，着力推进“互联网+金融”创新，通过 PPP、第 三方服务等方式引导社会资本投入循环经济。

一是完善财政政策。省财政设立促进循环经济发展专项资金，用于支持循环经济示范试点、新能源和可再生能源开发利用、资源综合利用新产品新技术推广、循环经济宣传、教育、培训和表彰奖励等。对省内循环经济试点企业，视具体情况，采取项目资金支持、亏损补贴、财政贴息等政策。优先对循环经济类项目进行支持。在推进循环经济项目、技术、产品研发方面，对企业循环经济类的开发项目，采取项目前期研发经费补贴的政策。对废弃物资源化的工艺设备开发、技术改造，实行科研、实验费用的补助政策。对应用先进能源利用设备的，实行设备投资补贴政策。

二是完善投融资政策。把发展循环经济作为政府投资的重点领域，加大资金支持。各级政府在确定投资重大项目时，单列循环经济项目计划，对循环经济重大项目和技术开发、产业化示范项目，给予直接投资、资金补助、贷款贴息等支持。制定政策引导企业和社会资金投入循环经济项目。开展形式多样的国际交流与合作，开拓国际援助渠道，争取利用国际资金和技术援助及优惠贷款，支持循环经济发展。

三是完善价格政策。完善促进循环经济发展的价格和收费政策，更好地发挥市场在配置资源中的基础性作用。加快推行居民生活用水阶梯式水价制度和分质定价制度，逐步提高城市污水处理费征收标准，合理确定再生水价格，提高水资源重复利用水平，推进中水回用。加大实施峰谷电价力度，严格执行差别电价政策，对国家淘汰和限制类项目及高能耗企业严格实行差别电价。

四是完善政府采购政策。研究制定政府绿色采购的政策措施，将节电、节油、节煤、节水、节材、资源综合利用等产品列入政府采购目录。政府优先采购绿色

产品，简化包装，减少一次性产品的使用，引导和鼓励绿色消费，在全社会营造健康节俭文明的生活消费理念。

五是完善废弃物利用政策。鼓励企业循环利用资源，鼓励发展资源再生产业。废弃物排放单位要向利用单位提供必要的条件，以便利用。对未经加工的废弃物，不得向利用单位收取任何费用；对经过加工处理的废弃物，按照利用单位效益远大于排放单位效益的原则，经双方协商一致后，排放单位方可收取一定费用。利用财政资金建设项目及财政资金补贴项目，在同等条件下优先考虑利用废弃资源生产产品的项目。企业利用废弃物生产的产品，按照国家规定享受相应的税收政策。

四、关于人才政策的优化建议

课题组认为，人才资源是循环经济发展中最积极、最活跃的因素，人才政策对循环经济发展具有主导性作用。目前青海循环经济人才数量不够、质量不优。需在引进、培养、配置等方面共同发力，探索建立市场化人才引进机制，实施重大人才工程，通过各项政策和制度的完善，促进各类人才转化成产业核心竞争力，以促进青海循环经济健康发展。

一是壮大循环经济人才队伍。启动实施“青海高端创新人才千人计划”，进一步整合衔接“昆仑英才”、“昆仑学者”、人才小高地等计划，建立一定规模、富有创新精神、敢于承担风险的创新型人才队伍，着力解决循环经济发展急需人才和智力短缺问题。到2020年，全省科技人员总量达到3万人左右。壮大循环经济企业家队伍，搭建企业高层经营管理人才培养、选拔、引进、评价、推荐公共服务平台。打造专业技能人才队伍，汇聚100名左右循环经济领军人才，大力培养数以万计的中端和初级人才，引导各类人才深入基层一线创新创业。

二是优化循环经济人才配置。建立健全人才流动机制，提高社会横向和纵向流动性，促进循环经济人才在不同性质单位和不同地域间有序自由流动。完善工资、医疗待遇、职称评定、养老保障等激励政策，激励循环经济人才向基层一线、藏区、艰苦边远地区、产业园区流动。开展西宁、海东地区与、环湖地区、青南地区人才交流和对口支援，继续实施对口援青人才培训工程。

三是营造循环经济人才发展环境。完善评价激励机制和服务保障体系，营造有利于人人皆可成才和青年人才脱颖而出的社会环境。发挥政府投入引导作用，完善循环经济业绩和贡献导向的人才评价标准。促进人才以知识、技能、管理等创新要素参与循环经济发展，以市场价值回报人才价值。强化对人才的物质和精神激励，鼓励人才弘扬奉献精神。营造崇尚专业的社会氛围，大力弘扬新时期工匠精神。

四是健全集聚人才制度体系。形成尊重知识、尊重人才、尊重创新的良好风尚和有利于出成就、出业绩的体制机制。建立教育培训和实践锻炼相配套、省内培养和省内外交流合作相衔接的开放式培养体系，支持高校、科研院所、企事业单位在产业园区设立实训基地，支持循环经济人才到国内重点院校、科研院所学习深造。实行以增加知识价值为导向的分配政策，提高循环经济发展成果转化收益分享比例，依法赋予创新领军人才更多人财物支配权、技术路线决策权。设立“青海人才工作伯乐奖”，制定发布紧缺急需人才目录。

五、关于科技政策的优化建议

课题组认为，科技创新既是循环经济发展的基本条件又是“加速器”和“推进器”，科技创新体系不仅决定了产业竞争能力，也决定了循环经济产业链延伸和产业融合度。必须发挥科技创新在循环经济发展中的引领作用，基本形成政府支持、市场主导、企业主体、科研院所积极参与、政产学研用结合的创新体系。

一是提升创新基础能力。实施科技型和高新技术企业“两个倍增”工程和科技“小巨人”计划。鼓励大型企业围绕循环经济发展，面向全球吸引科技领军人才和高水平创新团队，组建一批产业技术创新战略联盟。立足循环经济特色优势产业，支持企业加强与国内外科研机构、省内外大学和大型企业集团联合攻关。引导和支持高等院校、企业联合承担循环经济发展重大科研、企业关键技改项目。设立新兴产业创新引导资金，支持高新技术企业和科技型中小微企业快速发展。支持高校及科研院所的科技人员创办循环经济企业。

二是推进重点领域创新。引导组织重点领域关键技术攻关，有针对性地攻克一批循环经济发展中亟待解决的关键核心技术和共性技术，在若干优势产业领域抢占科技制高点。重点开展盐湖锂盐高纯化、锂离子动力电池及其关键材料产业化提升、铝镁合金深加工、先进晶体材料产业化、相变储热材料研发、镁盐建筑材料和复合材料、高原生物资源开发与利用、智能制造、环保装备产业化等方面的技术攻关，推动产业向价值链的高端攀升，形成一批在全国有较大影响力的循环经济特色产业集群。支持重点生态功能区生物多样性动态变化研究，推广高原生态系统修复等技术。加快对高原特色动植物资源保护和利用技术的研究，解决特有濒危药材的可持续利用问题。

三是强化科技成果转化。到 2020 年，全省科技服务机构超过 1000 家，每万人有效发明专利拥有量达到 2 件，循环经济发展的科技支撑能力明显增强。加快制定促进科技成果转化的地方法规。改造提升高新技术产业开发区、农业科技园区、科技企业孵化器、大学科技园等平台，推广新型孵化模式，提升分工合作的水平与生产效率。培育技术和股权期权市场，拓展技术和知识产权交易平台。

四是加强创新平台建设。到 2020 年，新建 5 个国家级科技创新平台，建立起与产业发展相适应、创新资源高效集成的创新平台体系。发挥高新区对创新资源

的集聚整合作用，引导创新平台形成资源叠加优势和创新集群效应。加快推进青海国家高新区、青海大学国家科技园、国家农业科技园区、西宁中关村科技成果产业化基地、海东中关村科技园及西宁、格尔木创新型城市建设。整合利用各类创新资源，搭建专业技术平台、引入专业化科技服务机构和科技金融服务体系，建设形成若干创新基地和创新集群。

五是完善开放交流机制。推动建立深度融合的开放式创新合作机制，推进跨领域、跨行业协同创新，提升吸纳利用国内外创新资源的能力。推进科技计划对外开放，依托青海循环经济发展优势，加强国际科技合作，建设国际科技合作基地。健全科研设施共享机制，促进科研基础设施、仪器和专利基础信息资源向社会用户开放，扩大科技资源的有效利用，实现资源共享。

六、关于社会政策的优化建议

课题组认为，发展循环经济是一项涉及各行各业、千家万户的事业，需要政府、企业和社会各界的共同努力。青海省循环经济发展到今天，单纯依靠政府推动已经显得乏力，必须依托全社会认同循环经济的理念并积极参与，来推动循环经济向更高水平发展。

一是形成多项激励。人们从事经济活动，往往重视经济激励，在发展中谋求经济利益最大化。而循环经济发展，是在政府主导下，通过一系列政策设定，使人们从事经济活动的动机，不仅谋求“经济性”的利益最大化，还要谋求“生态性”的利益最大化。因此，发展初期更多依赖经济激励为主的政策体系。但到一定阶段，人们行为激励就不能单纯依赖经济激励了，还必须依赖于其他激励因素，如荣誉激励、成就激励等。

二是发展分享经济。普及分享经济理念，提高公众参与分享的积极性。支持闲置房屋、闲置车辆、闲置物品的分享使用，推进共享办公、共享储存、共享信

息，提高闲置资产的利用效率。培育分享经济企业，创新商业模式，推动服务外包和政府购买服务。鼓励专业分享平台建设，逐步实现分享商品、信息服务的在线交易。完善创新监管和社会信用体系，构建制度保障体系。

三是鼓励绿色消费。增加绿色产品供给，支持绿色产品认证，完善绿色产品统一标识制度，畅通绿色产品流通渠道，鼓励消费者购买和使用绿色产品。倡导合理消费，力戒奢侈消费，制止奢靡之风。限制过度包装和一次性产品使用，推广节能节水产品、绿色照明产品、再生产品、再制造产品。规范发展二手商品市场，完善相关标准，规范流通秩序。

四是推广绿色建筑。建立健全绿色建筑标准和规范，积极推进绿色建筑设计和施工，推广使用绿色建材。在党政机关、学校、医院等建筑中全面执行绿色建筑标准。建立覆盖全省的大型公共建筑能耗监测体系，积极稳妥地推进各设区市建立能耗监管平台。新建建筑严格执行节能标准，城镇建筑设计阶段 100%达到节能标准要求，施工阶段节能标准执行率达到 95%以上。实施既有建筑能效提升工程，加快实施存量建筑节能改造。

五是倡导绿色出行。鼓励公共交通、自行车和步行等绿色出行方式。加快城市轨道交通、公交专用道、快速公交系统等大容量公共交通基础设施建设，加强自行车专用道和行人步道等城市慢行系统建设，增强绿色出行吸引力。推广节能环保交通运输装备，加快电动汽车充电基础设施建设，进一步扩大城市租赁自行车设施覆盖范围，形成良好的服务和应用环境。

六是构建回收体系。规范西宁、海东、格尔木、德令哈等地区、旅游景区和交通干线主要城镇废旧物资交易市场，开展闲置设备租赁、旧货调剂交易。实施再生资源和再生产品交易市场、废弃物处理、废旧电子电器和汽车拆解等重大项

目。完善垃圾收集、分拣、转运、填埋等设施，加强农村再生资源回收利用体系建设，组建乡镇、村回收站点及流动收购人员的回收网络。

七是建设循环社区。在全省范围内开展循环社区示范建设。开展社会生活的生态化服务，减少能耗及家庭废弃物排放，全面推进垃圾分类处理，提高社会废弃物回收利用率。工业废水与生活废水分类收集分别处理，社区内能源和自然资源消耗降低，最终实现废弃物排放大幅度降低、废弃物处理生态化和健康化。