

A Visual Map with Open Instructions: China's Macro Management System



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China's Eco-environmental Zoning-based Regulation System

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Challenges of the Traditional EIA System



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❑ Lack of trust

- The public is concerned that environmental impact assessments are merely a formalism.
- Enterprises believe that the process increases operational uncertainty and non-essential costs.

❑ Insufficient participation

- Participation of the public is concentrated at the end of the project, in a passive manner.
- Local governments, influenced by GDP orientation, have an instinctive resistance to strict environmental control measures.

❑ Insufficient transparency and transmission

- The macro-level planning EIA and the micro-level project EIA are disconnected: the environmental intentions in the top-level design are not effectively conveyed to specific projects, resulting in a persisting trend of "polluting first, then treating the problem later".
- The lack of transparency in the approval process has further increased distrust among all parties.

A top-level system was designed and developed as a solution

□ Eco-environmental Zoning-based Regulation System

- As a top-level system, it aims to establish an environmental source prevention system and provides a systematic solution to address the aforementioned challenges.
 - How does this system promote the participation of local environmental protection departments and communities in its design?
 - How does this system establish the trust of enterprises and the public in the environmental assessment system?
 - Does it enhance the transparency, certainty and scientificity of environmental management?



Improve the hierarchy of the EIA process

- Establish a top-level management to systematically clarify the logical framework for environmental control from the very beginning.



Promote diversity in participation

- Build an open and transparent environmental governance platform that breaks through the limitations of the past paper-based documents.



Build the foundations of trust

- By ensuring the certainty of regulatory rules and the transparency of information disclosure, ambiguous areas and suspicions in environmental management can be reduced.

Concept and Timeline of EZR System

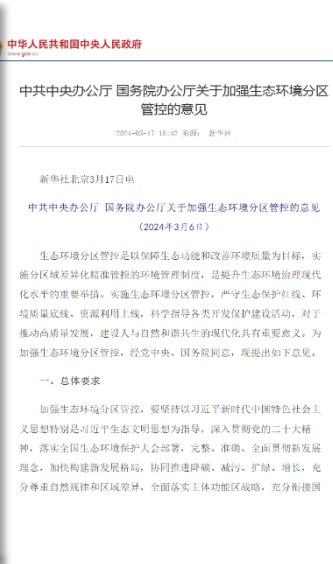


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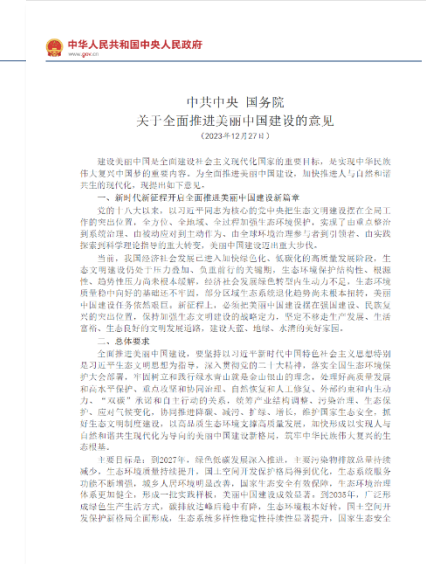
Core Concept: Eco-environmental Zoning-based Regulation System is a regional, differentiated, and precise environmental management system that aims to maintain ecological functions and improve environmental quality. It is an important measure to improve the level of modernization of ecological environmental governance.



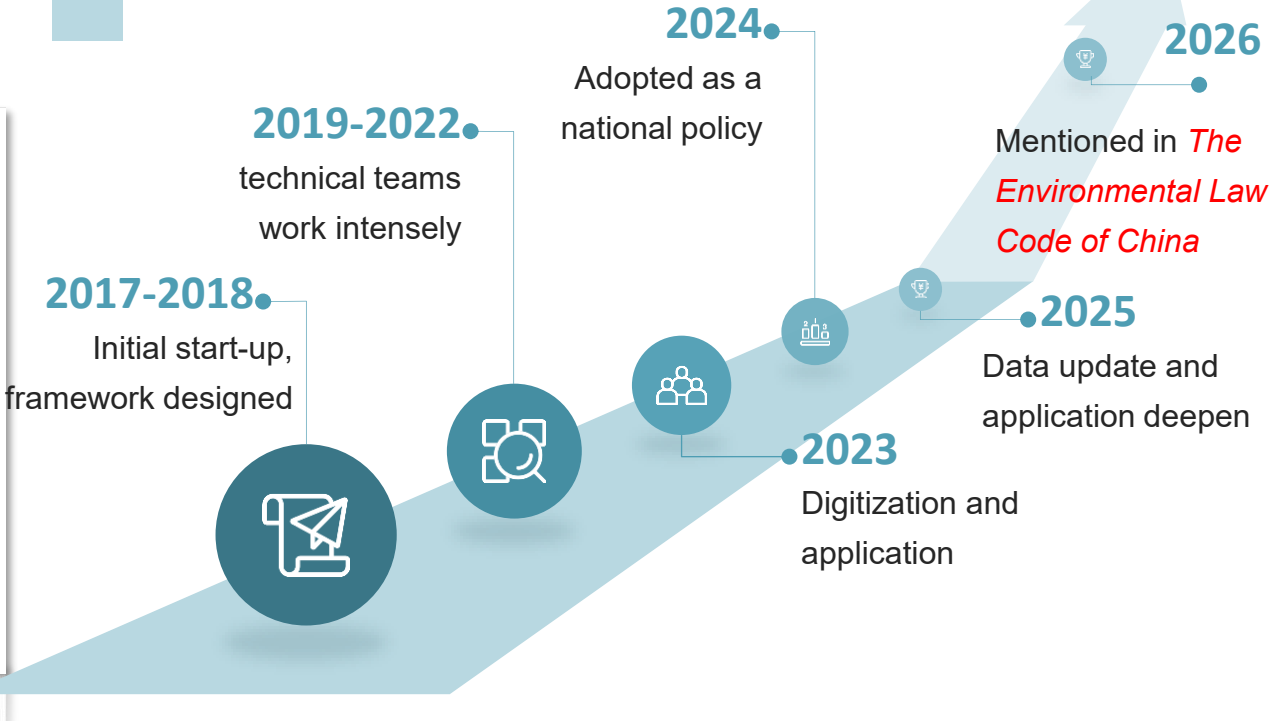
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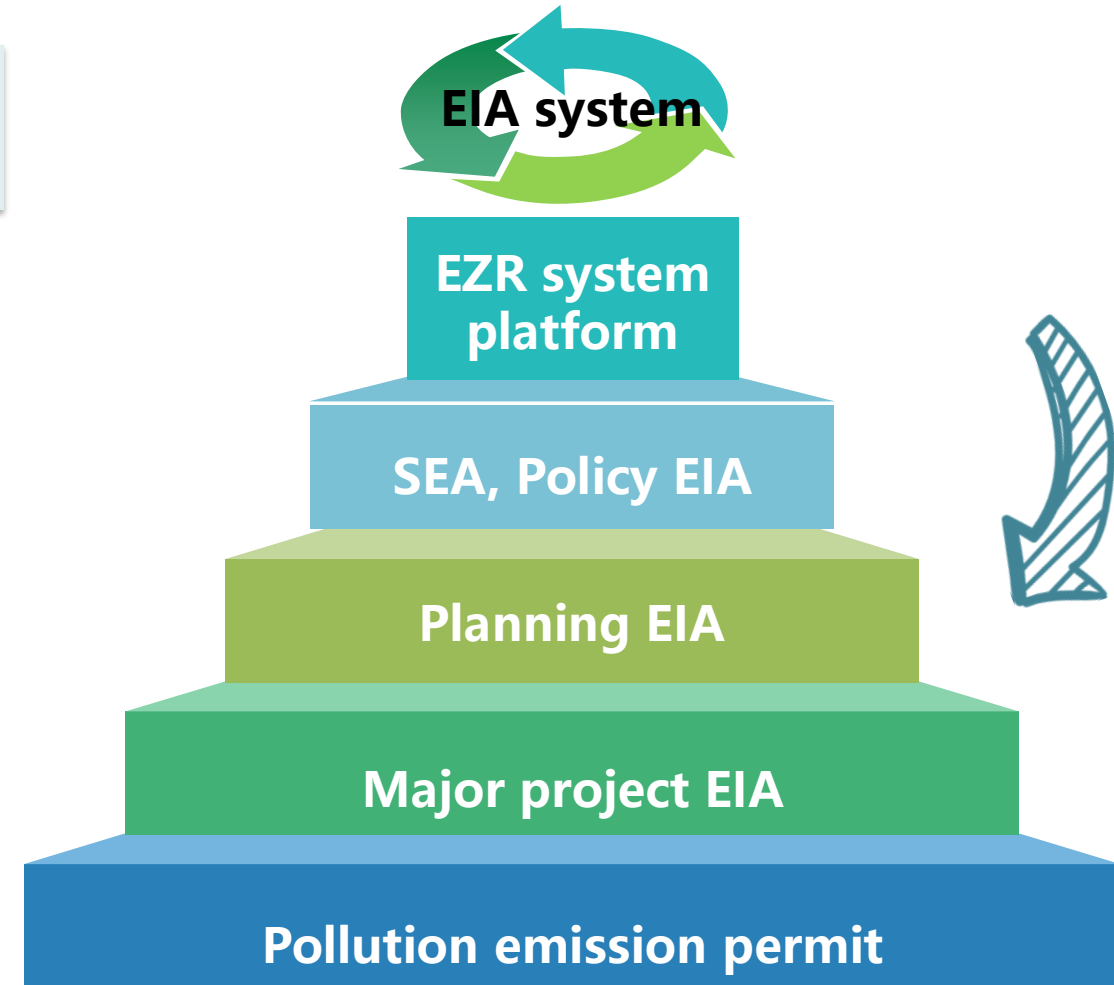
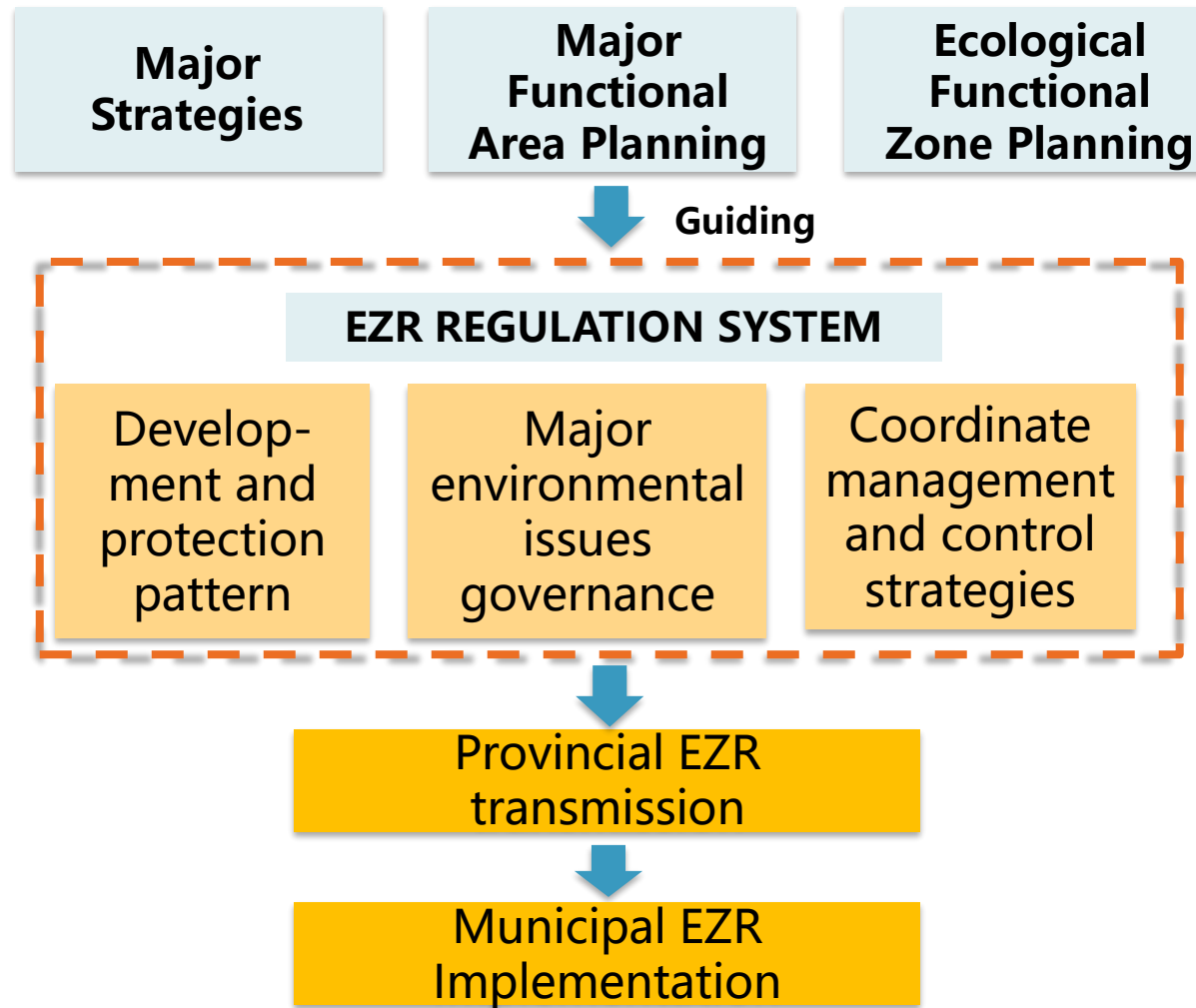


2023



Supporting the Management of Complex National Environment

- **Top-down strategic transmission:** serving the country's major strategies and implementing the national main functional area planning



Visual Zoning Map Results



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One Unified National Map

01 Powerful national-level data foundation:

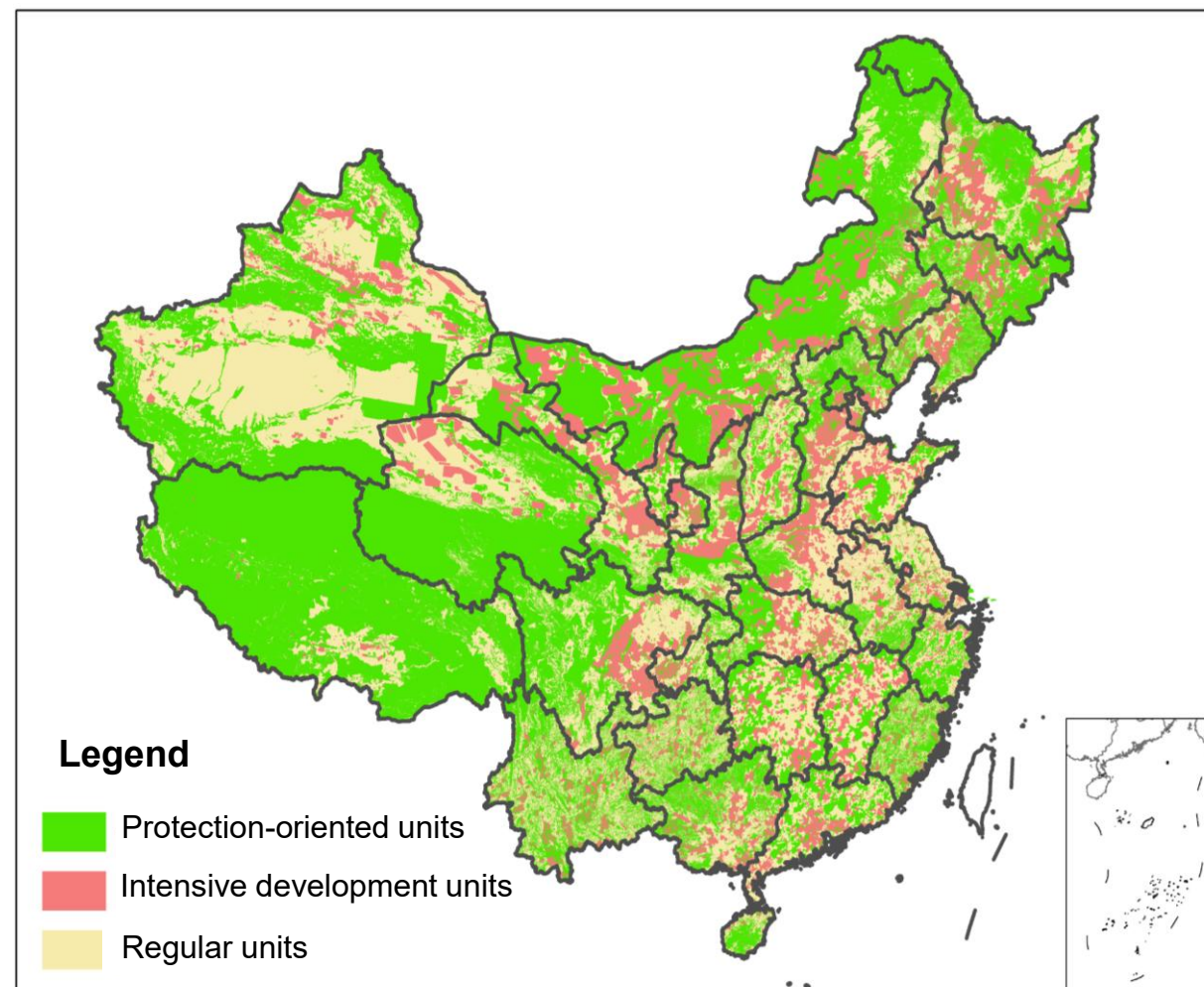
Establish three functional modules for results submission, results review and spatial analysis.

02 Submission status of provinces:

800+ spatial layers, 40,000+ land and sea environmental units, 180,000+ various element divisions, and 580,000+ control list requirements. A visual information system covering the entire national space has been formed.

03 Explore various types of environmental management application services:

spatial conflict analysis, project spatial access analysis, industrial park management, investment promotion pre-examination and other fields.

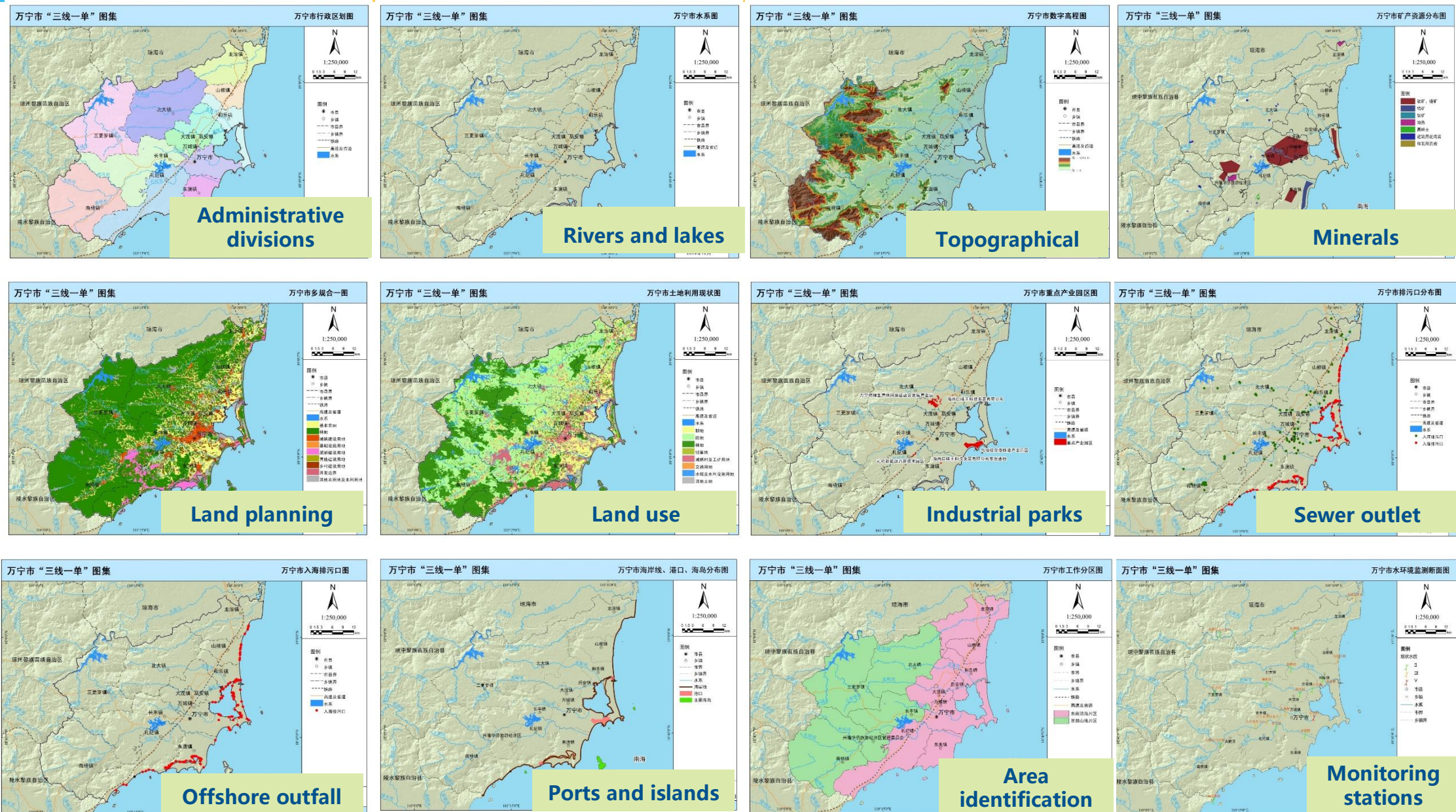


40,000+ integrated regulatory zones in China

Visual Map Collection of EZR System



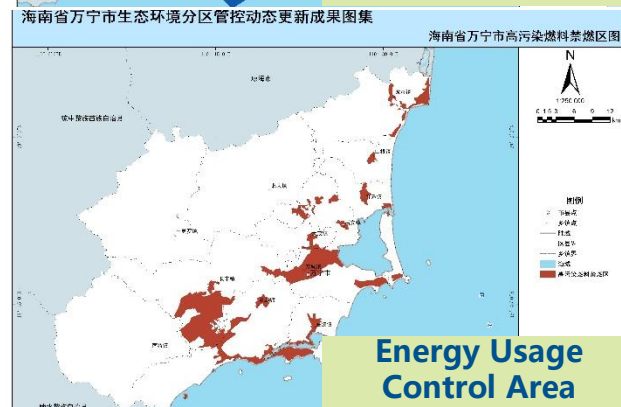
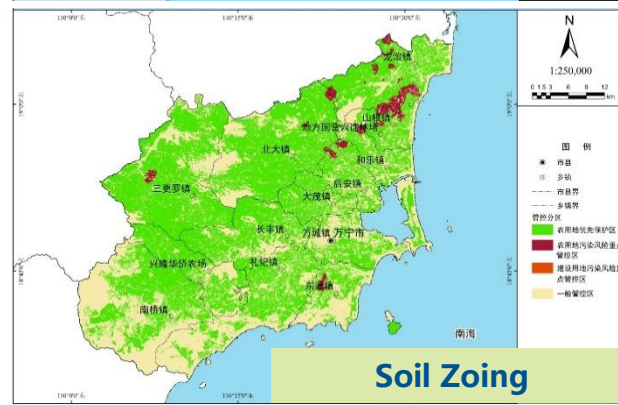
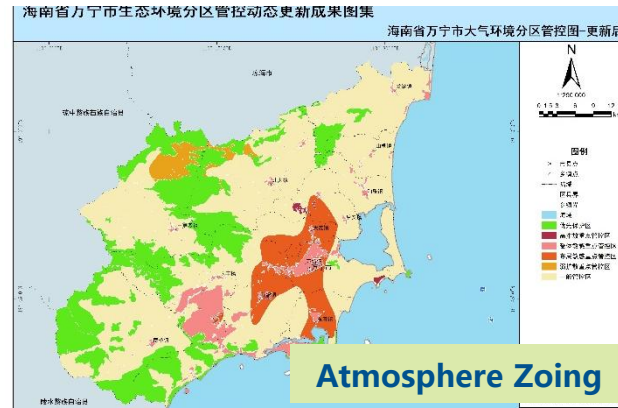
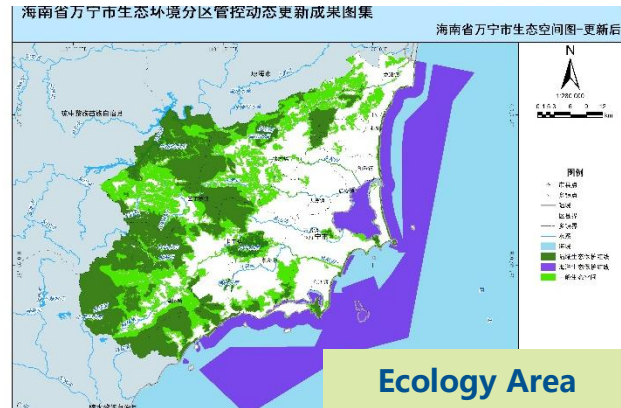
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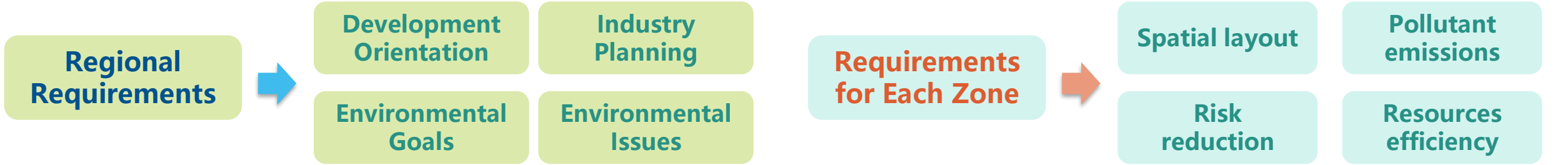
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Detailed Instructions of EZR System



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（七）万宁市生态环境总体准入要求

表 4-7 万宁市生态环境总体准入要求

区位特点	发展定位与目标	发展现状和问题	区域环境目标、现状、问题
1. 主导生态系统服务功能为生物多样性维护、水源涵养。 2. 万宁市位于海南省的东南偏东部，下辖 12 个镇。	1.区域发展定位 国际化知名热带滨海旅游城市、海南自贸港文化交往平台城市、海南自贸港生态文明示范区、南海资源开发及保障基地。 2.功能及规划产业 城市职能：海上运动旅游胜地、全国知名优质农产品供应基地、新能源产业基地。 规划产业：以旅游消费、高效农业、先进制造和现代服务为主导，重点打造四大产业集群。总体构建“三区、多点”的产业空间布局。三区指环小海产业区、大兴隆产业区和山根湾山钦湾产业区。多点主要包括万宁绿色制造综合产业园（含原槟榔城及后安工业园）、礼纪工业园等产业节点。	1.发展现状和问题 经济保持逐步向好的发展态势，产业结构实现“降一稳二提三”，其中工业产业规模不断壮大，农产品加工、绿色建材等支柱产业逐步形成，但存在工业体系不完善，产业结构还不够合理，工业产值以农产品加工为主。旅游发展发展定位不够明确，旅文业融合发展有待进一步深化。 2.资源承载力 （1）水资源：用水总量开发利用程度不超载，水资源利用效率偏低。 （2）土地资源：建设用地承载盈余，建设用地等利用效率偏低。 （3）岸线资源：自然岸线占比 57.5%。	1.生态环境目标、现状、问题 （1）规划目标 到 2035 年，生态环境质量省内领先，绿色低碳循环发展体系基本形成，资源利用持续高效，碳排放达峰后稳中有降。 （2）现状及问题 生态质量类型为一类，自然生态系统覆盖比例高、人类干扰强度低、生物多样性丰富、生态结构完整、生态系统稳定、生态功能完善。环保基础设施建设相对滞后。局部生态环境问题仍然突出，水环境污染问题较为突出。局部生态系统遭到破坏。环境治理体系和治理能力有待加强，生态环境保护制度体系有待健全。 2.要素环境目标、现状、问题 （1）大气 1）规划目标：PM _{2.5} 年均浓度 2025 年为 11μg/m ³ 。 2）现状：2022 年 SO ₂ 、NO ₂ 、PM ₁₀ 、PM _{2.5} 、O ₃ 和 CO 六项污染物年均浓度均符合环境空气质量二级标准要求。 （2）水 1）规划目标：到 2025 年，地表水考核断面水质优良比例达到 93.3%以上，地表水质量劣 V 类水体比例为 0，村镇集中式饮用水源地水质达标率为 100%。 2）现状及问题：2022 年城市饮用水源地水质达标率为 100%。万宁水库饮用水源地畜禽养殖、水产养殖等农业面源污染治理工作滞后。 （3）土壤 到 2025 年，受污染耕地安全利用率达到 95%以上，污染地块安全利用率达到 100%以上。 （4）近岸海域 1）规划目标：到 2025 年，近岸海域和入海河流水质稳中趋好，完成省里下达近岸海域水质优良（一、二类）比例目标 2）现状及问题：2022 年近岸海域水质总体优良，局部近岸海域水质不能满足标准要求，小海和老爷湾为 IV 类海水水质类别，连续多年未达标。

（七）万宁市生态环境准入清单

表 5-7 万宁市生态环境准入清单

环境管控单元编码	单元类型	生态环境分区类型	管控维度	管控要求
ZH46900610001	优先保护单元	生态保护红线(核心保护区)、大气环境优先保护区	空间布局约束	1.执行生态空间（生态保护红线内自然保护区核心保护区）普通性管控要求。生态保护红线内自然保护区核心保护区原则上禁止人为活动，经依法批准的科学研究观测、调查监测、生态修复等法律、法规和国家有关规定允许的活动除外。生态保护红线内涉及自然保护区、饮用水水源保护区的，遵循现有法律法规要求，空间重叠区域从严要求。 2.执行大气环境优先保护区普通性管控要求。 3.执行自然保护区普通性管控要求。
ZH46900610002	优先保护单元	生态保护红线(核心保护区)、水环境优先保护区(地表水饮用水水源、高功能水体)、大气环境优先保护区	空间布局约束	1.执行生态空间（生态保护红线内自然保护区核心保护区）普通性管控要求。生态保护红线内自然保护区核心保护区原则上禁止人为活动，经依法批准的科学研究观测、调查监测、生态修复等法律、法规和国家有关规定允许的活动除外。生态保护红线内涉及自然保护区、饮用水水源保护区的，遵循现有法律法规要求，空间重叠区域从严要求。 2.执行饮用水水源保护区（地表水）普通性管控要求。在饮用水水源一级保护区内禁止新建、改建、扩建与供水设施和保护水源无关的建设项目。在饮用水水源二级保护区内禁止设置排污口，禁止新建、改建、扩建规模化养殖场、高尔夫球场、制胶、制糖、化工以及其他排放污染物的建设项目或者设施。在饮用水水源准保护区内禁止新建、扩建对水体污染严重的建设项目，改建增加排污量的建设项目。 3.执行水环境优先保护区（高功能水体）普通性管控要求。 4.执行大气环境优先保护区普通性管控要求。 5.执行自然保护区普通性管控要求。
ZH46900610003	优先保护单元	生态保护红线(核心保护区、其他区域)、水环境优先保护区(地表水饮用水水源)、大气环境优先保护区	污染物排放管控	1.执行饮用水水源保护区普通性管控要求。 2.执行水环境优先保护区（高功能水体）普通性管控要求。
			环境风险防控	执行饮用水水源保护区普通性管控要求。
			空间布局约束	1.执行生态空间（生态保护红线内自然保护区核心保护区）普通性管控要求。生态保护红线内自然保护区核心保护区原则上禁止人为活动，经依法批准的科学研究观测、调查监测、生态修复等法律、法规和国家有关规定允许的活动除外。生态保护红线内涉及自然保护区、饮用水水源保护区的，遵循现有法律法规要求，空间重叠区域从严要求。 2.执行生态空间（生态保护红线其他区域）普通性管控要求。生态保护红线其他区域严格禁止开发性、生产性建设活动，除国家重大战略项目外，仅允许对生态功能不造成破坏的人为活动。生态保护红线内涉及自然保护区、饮用水水源保护区的，遵循现有法律法规要求，空间重叠区域从严要求。 3.执行饮用水水源保护区（地表水）普通性管控要求。在饮用水水源一级保护区内禁止新建、改建、扩建与供水设施和保护水源无关的建设项目。在饮用水水源二级保护区内禁止设置排污口，禁止新建、改建、扩建规模化养殖场、高尔夫球场、制胶、制糖、化工以及其他排放污染物的建设项目或者设施。在饮用水水源准保护区内禁止新建、扩建对水体污染严重的建设项目，改建增加排污量的建设项目。 4.执行大气环境优先保护区普通性管控要求。 5.执行国家公园（核心保护区）普通性管控要求。 6.执行海南热带雨林国家公园（核心保护区）普通性管控要求。
ZH46900610004	优先保护单元	生态保护红线(核心保护区)、大气环境优先保护区	空间布局约束	1.执行生态空间（生态保护红线内自然保护区核心保护区）普通性管控要求。生态保护红线内自然保护区核心保护区原则上禁止人为活动，经依法批准的科学研究观测、调查监测、生态修复等法律、法规和国家有关规定允许的活动除外。生态保护红线内涉及自然保护区、饮用水水源保护区的，遵循现有法律法规要求，空间重叠区域从严要求。 2.执行大气环境优先保护区普通性管控要求。 3.执行国家公园（一般控制区）普通性管控要求。

Key Function : Spatial Access Analyze

Whether a site selection is wise:

When you want to select a site for a new project, the platform provide the unit type and access requirements, and assist in the analysis conclusion.

Provide basic requirements for industry access:

Such as "prohibition of specific types of industrial access", "prohibition of chemical raw materials and chemical products manufacturing industry", "prohibition of heavy metal emission enterprises", etc.

More details and suggestions for conflict:

Some provinces use local data platforms or relevant environmental layers, such as environmental sensitive sites, environmental monitoring records, industrial parks location and others.

Developing function:

Recommend accessible industrial parks.
Provide of environmentally sensitive site information such as: livestock farms, waste incineration plant, airport, ports, train lines, hazardous waste treatment facility.....

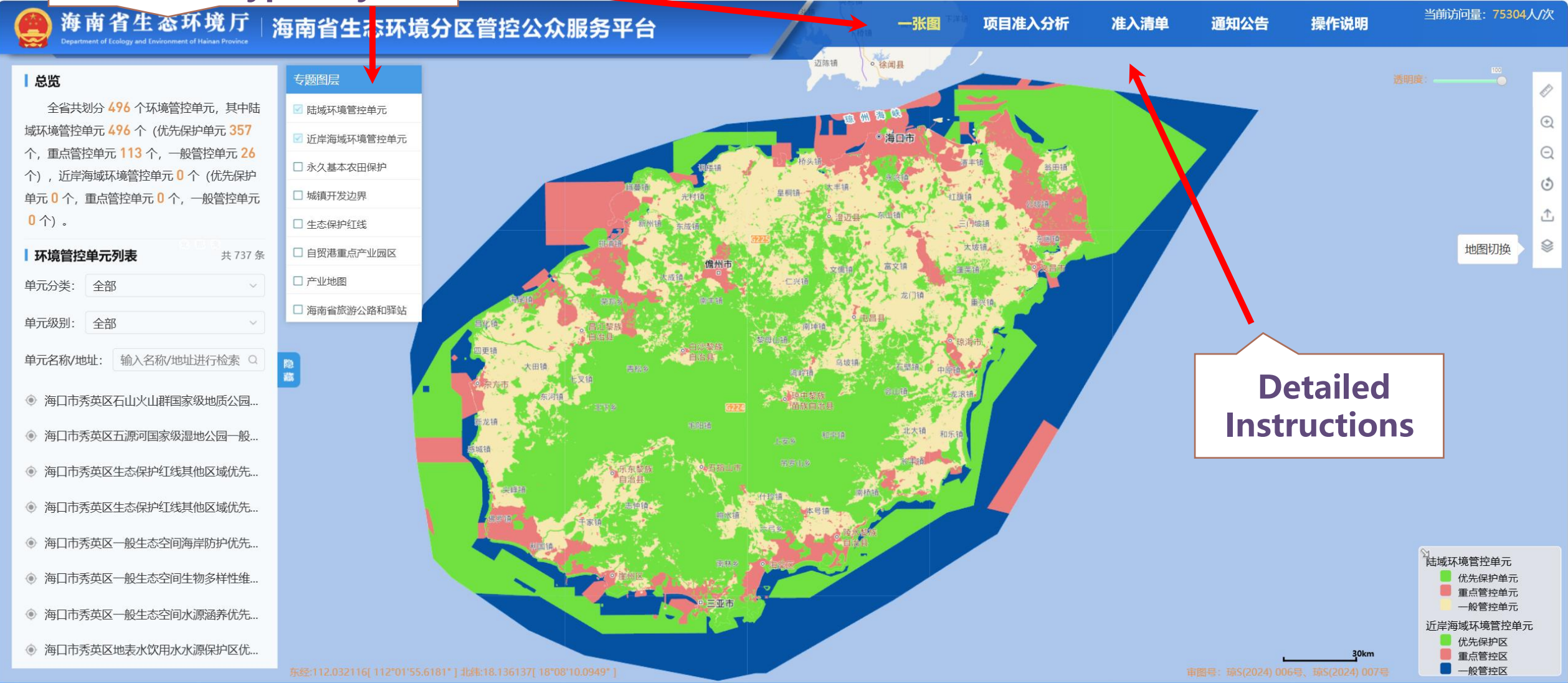
EZR System's Visual Map Website Example



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"One map" and
different types layers

Hainan Province EZR Public Service Platform



Detailed
Instructions

Public Platforms Constructed in Multiple Provinces



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- According to statistics, **32 provinces** have established information platforms, and approximately **28 provinces** are accessible to the public.

Data management

Comprehensive results display

Access assessment

Risk inquiry



Beijing



Fujian



Jiangsu



Zhejiang

Building Trust and Promoting Participation



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Key Contribution:

The zoning management system enhances public trust in environmental governance through the public disclosure of environmental information, visual and easy-to-understand map-based results, and transparent guidance requirements.

For companies

Provide clear rules

Guide green transformation and upgrading

Provide clear basis and improve approval efficiency

For the Public

❑ Expanding participation channels and strengthening public oversight

- A transparent and open management system provides a clear benchmark for public oversight of corporate pollution discharges as well as government environmental management, enhancing the efficiency and effectiveness of environmental oversight.

Predictability and certainty

Transparency and openness

Scientificity and impartiality

Compliance with objective reality

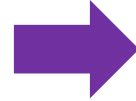
Our Next Step: Build A More Complete EZR System



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- We are about to update the outcomes during the "15th Five-Year Plan" period.
- It will gradually incorporate **new elements** such as the **acoustic environment, groundwater, heavy metals, and greenhouse gas emissions**.

Key Construction Tasks



Improve the System
Construction
Comprehensively

Enhance Application
Efficiency Steadily

Strengthen
Organization and
Implementation

Improve the legal system

Improve the technical system

Optimize zones division

Track and evaluate

Promote watershed coordination

Coordinate pollution and
carbon reduction

Enhance precision
management and control

Improve the supervision
mechanism



Thank you!

Merci!





Let's continue the conversation!

Message me your questions or comments in the IAIA26 app.

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