



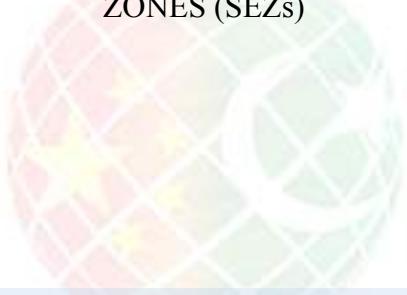
Urban Development

in Pakistan under CPEC

Explore feasible options to achieve sustainable urbanization,
transit oriented development, and turn CPEC into a green project



CPEC-A STEP TOWARDS ENVIRONMENTALLY SUSTAINABLE SPECIAL ECONOMIC ZONES (SEZs)



25th May 2017

Organized By

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ROUND TABLE CONFERENCE

CPEC-A STEP TOWARDS ENVIRONMENTALLY SUSTAINABLE SPECIAL ECONOMIC ZONES (SEZs)



Development projects that aim to attain sustainable development should not be at the cost of environment. **CPEC-A Step Towards Environmentally Sustainable Special Economic Zones (SEZs)** is an effort to identify potential problems that may arise, and thus propose suitable mitigation strategies.

INTRODUCTION



Figure 1: Dr. Shahid Rashid, Executive Director CoE-CPEC

A roundtable conference was hosted at Centre of Excellence-China Pakistan Economic Corridor (CoE-CPEC) by Urban Development division under the title of "**CPEC-A Step towards Environmentally Sustainable Special Economic Zones**", organized by Dr. Saleem Janjua, Policy Head, Urban Development Division, Ms. Numra Asif and team members on May 25th, 2017.

The session started at 02:00pm with the formal recitation of Holy Quran. Dr Shahid Rashid, Executive Director CoE-CPEC formally inaugurated the session with welcome remarks. He gave a detailed insight of CoE-CPEC. The centre is a joint initiative of PIDE and Ministry of Planning Development and Reform. It is the first authorized think tank working on CPEC portfolio. Centre of Excellence for CPEC aims to become an evidence-based research and policy guiding think tank on CPEC and



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thus guide policy makers, implementers; business community and society.

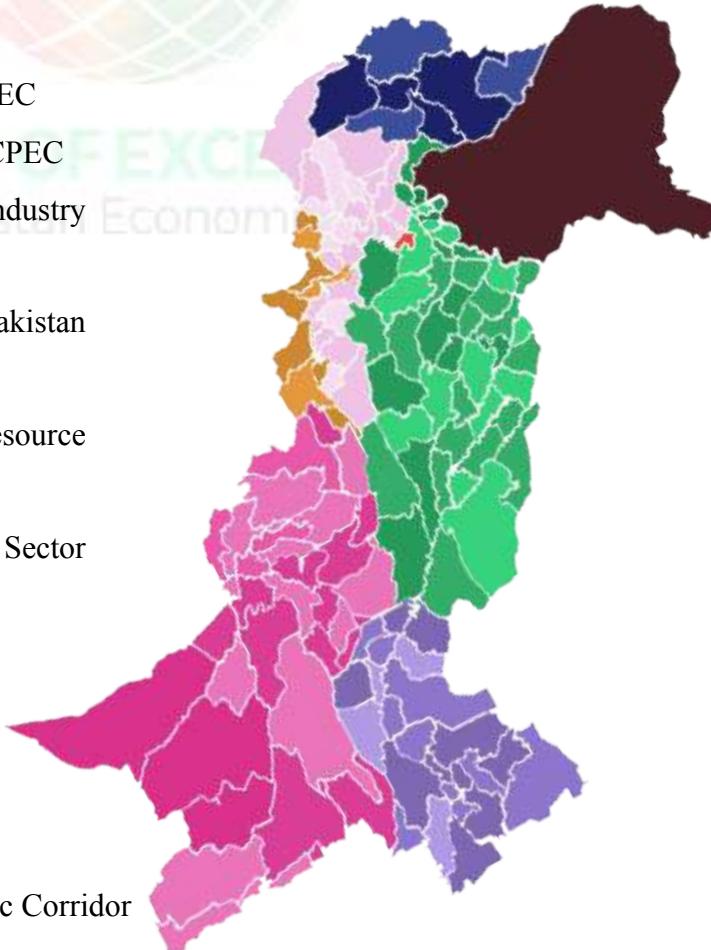
The Mandate of the Centre of Excellence for CPEC is to

- Conduct policy research on six thematic areas of CPEC
- Promote positive narrative on CPEC
- Guide implementers of CPEC on policy matters
- Establish Pak-China Study Centre
- Train business community on CPEC related business opportunities

The six policy research themes of the Centre of Excellence for CPEC are

- Socio Economic Impact of CPEC
- Regional Connectivity under CPEC
- CPEC Trade and Industry Cooperation
- Urban Development in Pakistan under CPEC
- Job Growth and Human Resource Development
- Financing and Financial Sector Integration under CPEC

CoE-CPEC's pivotal focus is towards contemplating the potential synergy of CPEC's bilateral collaboration for both Pakistan and China. This roundtable conference is very crucial in allowing the participating delegates to comprehend the dynamics of the corridor. The participants were requested in the beginning of the session to create dialogue, and offer their sincere recommendations, so that they can be forwarded to the relevant ministries for action.



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SESSION COMMENCEMENT



Figure 2: Dr. Saleem Janjua, Policy Head Urban Development CoE-CPEC

The conference then proceeded with an overview of Urban Development division at CoE-CPEC. The session was addressed by Dr. Saleem Janjua, Policy Head, Urban Development Division. Dr. Saleem Janjua welcomed all the guests. He then proceeded with a brief overview of CPEC.

CPEC has a 1+ 4 portfolio. The project's nucleus is centered on energy, infrastructure, Gawadar, and Industrial Corporation. Holistically, the entire corridor

includes 21 CPEC energy projects, 8 infrastructure projects, and 12 projects for Gawadar. Industrial cooperation, which is a relatively pristine concept that has been included in CPEC portfolio. To enhance Pakistan's energy profile, 16040 MW energy would be integrated in the system through CPEC energy projects. Several infrastructure projects are in progress and would be instrumental in elevating economic stability. Similarly, Gawadar east bay expressway, development of free zone,



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port city master plan, an airport, and a hospital are also in progress.

Pakistan is highly urbanized. The trend shows an expansion in urbanization, and by 2025, 50% population would be in cities. There would be a massive population pressure on the cities, which needs to be contrived proactively and with a sustainable approach. For cities, natural systems, infrastructure, and the political and civil culture hold a crucial standing.

CPEC in itself will alter the spatial pattern to great magnitudes as well as the urban dynamics of our cities. Therefore, the

immediate need is to design careful, and proactive strategies that address all challenges pertaining to all the densely populated areas.

Among an array of important topics, the initial focus of Urban Development Division of CoE-CPEC is on three key areas

- Sustainability of SEZs through Urbanization
- Mass Transit Projects under CPEC
- CPEC Environment-related Challenges and Opportunities

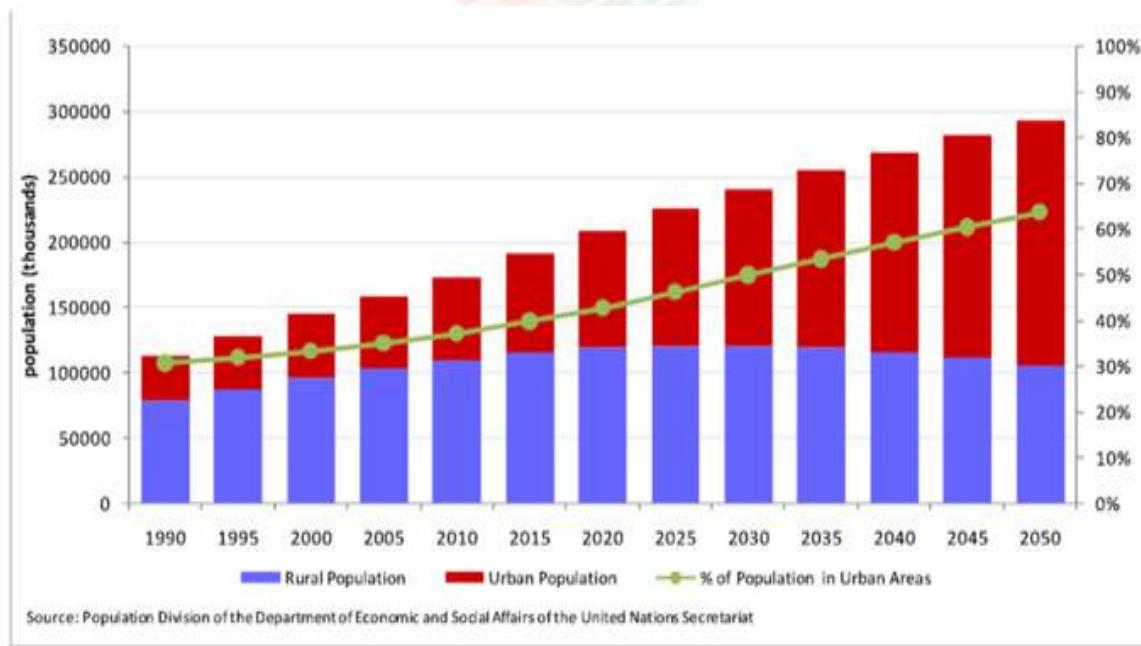


Figure 3: Urban Development-Pakistan

Dr Janjua's presentation progressed with a brief introduction of Special Economic Zones. Special Economic Zone (SEZ) is a blanket term for an assorted mix of industrial/export processing/trading zones with enterprises operating in a designated geographic area. These areas encompass certain economic activities tackled by a set of policy measures that are not generally applicable to the rest of the country.

Under section 3(n) of the SEZ Act, 2012; "Special Economic Zone" or "(SEZ)" means a geographically defined and delimited area which has been approved and

notified by the Board of Approval "(BOA)". The sixth Joint Corporation Committee (JCC) meeting held in China, 2015 between MPD&R and NDRC have identified the following nine Special economic zones.

Government of Pakistan passed the SEZs Act in 2012 (amended in Oct. 2016). The prime objective of this legal act was to magnetize prospect investments and encourage improved infrastructure. For establishment of special economic zones, minimum 50 acres of land is required. All SEZs will have corporate income tax holiday of 10 years for Investors and 10



Figure 4: Map of Nine Prioritized Special Economic Zones under CPEC



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years for Developers. The import of capital goods is duty free. To encourage this multi-sectorial economic collaboration, services like gas, electricity, and security will be provided. Special Economic Zones can be established by public sector, private sector, and/or public-private partnership. Board of Investment will coordinate all activities pertaining to SEZs in the near future as they have the mandate to facilitate SEZs.

It is critical to mention here that special economic zones possess some common traits. These normally include creating ease for doing business, generating efficient and competitive industrial clusters, provision of excellent infrastructure in lieu of the global competitiveness, establishment of one-window facility for reduction of overhead costs, availability of utility services at door step, and the end goal is to mainstream marginalize and backward areas. These traits need to be appraised because the development of special economic zones leads to a wave of urbanization, which raises concerns for service delivery, and infrastructure. These concerns should be addressed with

precarious care, because they can give way to grievances.

Dr. Janjua mapped out the alignment of the session's objectives with the core research mandate. The conference invited practical recommendations from all stakeholders who held interest in the alleviation of Pakistan's economic problems. By conducting similar sessions frequently, more propositions can be solicited.

The ultimate objective, through this RTC is to project CPEC as a green project. This roundtable conference was structured in three sub sessions, which are briefed as under.



Session I-Environmental opportunities and Challenges for success of Special Economic Zone (SEZs)

By Dr. Uzaira Rafique

Discussing the traits of Special Economic Zones, Dr. Uzaira Rafique, Dean Faculty, Sciences and Technology, Fatima Jinnah Women University, Rawalpindi, spoke about the performance measurement of the SEZ's.

The SEZs facilitate provision of a medium which not only attracts foreign companies looking for cheaper and efficient location options to configure their offshore business, but it also allows the local industries to improve their export through a proper channel. The zones can be effective instruments to promote industrialization if implemented adequately. Under the umbrella of CPEC, Planning Commission of Pakistan is speculating establishment of 27 SEZs across country. The Gwadar SEZ was

introduced as the first model on China's discretion, based on an area of 3000 acres

The setup of Special Economic Zones can create a massive number of opportunities for country's stability and its populace. These include employment generation opportunities, foreign exchange investment, urban and regional development, revenue generation

for the government, export growth and diversification, skill up gradation of local labors, technology exchange and in particular, adoption of modern management practices.

The smooth execution of each SEZ is subject to Pakistan's domestic situation and socio-political culture. The tax rebates that



Figure 5 Dr. Uzaira Rafique, Dean Faculty, Sciences and Technology, Fatima Jinnah Women University, Rawalpindi

are rendered to industries, leads to losses in revenues. Consumption of agricultural land for industrial activities has serious implications on food security. Flora, fauna, pollution, and environmental degradation are common threats to environmental

addressed with suitable mitigation strategies. Thus, establishment of low carbon zones, and eco industrial parks should be the focus.

Special Economic Zones are growing globally, and the concept is getting



sustainability. Developing countries like Pakistan face additional issues, such as regional inequalities that may arise, and the exploitation of labor, as labor laws are a provincial subject

There are several determinants for the success of a special economic zone which include rigorous planning, design, and operation of SEZ. Identifying the appropriate skill set needed for the industries, and training labor accordingly is required. Continuous technological up gradation and innovation is required. A special economic zone will remain sustainable, if environmental issues are

acclaimed. However, mixed results in different economies, countries, and regions show that the zones are not a panacea for development. To be successful, zones have to be implemented precariously tailored into a country's specific situation. They are not a suitable development instrument in every situation. The countries holding relevance for SEZs require a clear framework taking into account the complex and heterogeneous environments of these zone programs operations. Such a framework should define all roles and responsibilities for the government and private sector. Necessary statutory frameworks should be established.

Session II- Industry and Environment- Best Practices from the Globe

By Mr. Irshad Ramay

The second session was addressed by Mr. Irshad Ramay, Coordinator National Cleaner Production Center. The session started with a brief introduction of NCPC, its objective and resource efficient cleaner production activities. National Cleaner Production Center (NCPC) aims to introduce and promote Cleaner Production (CP) techniques and processes for Pollution Prevention at source along with integrated

waste management. It was established by United Nation Industrial Development Organization (UNIDO) in 1999 with collaboration of United Nation Environment Programme (UNEP), United Nation Development Programme (UNDP), Environment Protection Agency (EPA's), Ministry of Climate Change (MOCC) and Ministry of Petroleum and Natural



Figure 6: Mr. Irshad Ramay, Coordinator National Cleaner Production Center

Resources (MNPR)

It is claimed that by 2030, global energy demand would increase by 56%, GHG emissions would rise up to 45%, Global average temperature would rise by 6-degree C. There is a speculation of unprecedented economic losses equivalent to 12-15 % of global GDP as compared to 3% of GDP loss from the current financial crisis, and poor countries will suffer costs in excess of 10% of their GDP. Green economy appears as the apparent solution to the environmental complications of an economy. A modern and contemporary approach for resolving Pakistan's chronic energy issues is to move towards a low carbon economy, create green jobs, green growth, an ecological economy, sustainable cities, and transport. Special Economic zones should be constructed with these points in mind. It is claimed that shifting 25% of all air travel in 2050 under 750 km to high-speed rail travel would result in savings of around 0.5 GT of CO₂/year and shifting 25% of all road freight over 500 km to rail, 0.4 GT of CO₂/year could be saved.

Industrialization holds a major segment in the economic development and prosperity of a country but on the downside,

it generates environmental deterioration. Industries are a major cause of air pollution, wastewater, land pollution, marine and coastal pollution as well as a contributing factor to noise pollution. The emission of air pollutants includes organic solvents, repairable particles, Sulphur dioxide and nitrogen oxides.

These pollutants are hazardous for public health. They damage the environment by contributing to global phenomena such as climate change, the greenhouse effect, ozone hole and increasing desertification, and their toxins infiltrate the food chain. Industrialization makes use of resources - raw materials from the land, water, wood and plants, fossil fuels, etc. This has monumental implications for SEZs. Industries in Special Economic Zones should be designed with suitable environmental measures.

Some of these measures are as follows:

- Economic zones/industrial clusters by experts
- Mandatory environmental management systems
- Energy efficient Equipment's.

- Application of cleaner production practices
- Plantation around the clusters to balance CO₂ emission in atmosphere.
- Combined waste water treatment plants and waste water recycling
- Waste management that is modeled around the concepts of reduce, reuse and recycle

Industrialization's major traits include economic uplifts for countries and provision of greater quantities of goods

readily available at lower cost. If tackled adequately, it has great potential for positive economic transformations.

Business affiliates and industries in special economic zones should aim for progressive improvement in their environmental performance. This includes integrating principles of sustainability into business decisions, responsible use of natural resources, adoption of cleaner production and pollution prevention measures as per the principles of sustainability.



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Session III-Environmental Assessment Strategies-The way forward for Pakistan

By Ms. Fauzia Bilqis Malik

The third session was addressed by

Ms. Fauzia Bilqis Malik, Manager Islamabad Programme Office, IUCN, and Islamabad, Pakistan. The session started with a brief introduction of CPEC, and its contribution as a game changer for the region. She escalated her concerns regarding potential environmental challenges to be addressed during CPEC implementation.

These include:

- Increase in greenhouse gas emissions, which may lead to a failure in compliance with the Paris Agreement on climate change.
- Increase in air pollution (worsening air quality, acid rain and smog) due to the burning of coal.
- Increased risk of oil spills in deep



Figure 7: Ms. Fauzia Bilqis Malik, Manager Islamabad Programme Office, International Union for Conservation of Nature, Islamabad



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sea Gwadar Port and consequent harm to marine life.

- Destruction of wetlands located along the CPEC route. Wetlands are a vast resource in terms of livelihoods, biodiversity and migratory birds. It is expected that in Pakistan 4 wetlands may be impacted due to CPEC.
- Possible loss or endangered biodiversity along the CPEC corridor.
- Habitat fragmentation, deforestation, diversion of rivers in dam construction, ground water and soil pollution.
- Adverse impact on six Protected Areas along the CPEC route.
- Marine and thermal pollution from establishment and functioning of HUBCO jetty, Port Qasim power plant, Gwadar deep sea Port.
- Displacement of communities putting pressure on the dwindling natural resource base.
- Major impacts on the Biodiversity, natural vegetation and ecosystems along the route.
- Increasing sensitivity of mountainous ecosystems, especially

in high altitude regions with higher climatic stress. Consequently, they may be subject to avalanches, glacial melt, soil erosion and landslides.

- Increased sedimentation from the watersheds.
- Contribution towards air emissions, wastewater, land pollution, coastal and marine pollution.

Need for Environmental Safeguards

CPEC projects include power generation, infrastructure development, and establishment of economic and industrial zones all of which have high environmental costs. Transition towards a carbonized economy model would significantly increase the country's greenhouse gas emissions. Transport and infrastructure development projects will cause large-scale pollution and environmental degradation. So far, no environmental safeguards are in place to mitigate them. A mechanism needs to be contracted to limit the environmental impacts of CPEC.

There is a crucial need for a designated department to ensure compliance with existing environmental laws. There is



also dire need of central authority to oversee the implementation of mitigation measures outlined in the EIAs of specific projects (if conducted). Training of project personnel and staff of concerned departments in environmental sustainability is required. Sustainable development can only be ensured when environmental and social externalities are accounted for.

Conservation of fresh water must be ensured by conserving the parks, lakes and wetlands. Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA) of CPEC projects may be conducted and followed up with scoping study for any specific concerns related to biodiversity and livelihood. EIA must include the cost to environment in case of every project. In planning of CPEC projects, the development, environment and people should be considered in a nexus. Infrastructure projects in CPEC must address biodiversity related concerns by constructing Biological Corridors across the highways for facilitation of the animal movement across and to maintain the threatened biodiversity. Ecotourism may be considered as a livelihood option promoting biodiversity conservation with involvement of local communities.

Strategic Environmental Assessment (SEA) is an analytical and participatory approach that is used to integrate environmental considerations into policies & plans and to evaluate the inter linkages with economic and social considerations. A high-quality SEA can help in identifying better opportunities, prevent costly mistakes, build stakeholder commitment, alleviate poverty more effectively, and prevent conflicts. As a tool, SEA is more effective and cheaper than EIA. Information, dialogue, and decision making are considered as key elements of SEA.

The key stages of SEA include following;

- Establish the context: Screening, objectives set, stakeholders identified, communication plan
- Implement the SEA: stakeholder dialogue, scope of SEA, alternatives & impacts, quality assurance
- Inform/influence decision-making: formulate recommendations; communicate to planners & politicians
- Monitor: monitor implementation, evaluate & feedback to political process



Sustainability requires an integrated focus on environment, economy, and society. Sustainability also requires that strategies that are foundation for the economic growth, consider the available resources, pay due regard to the environment, health, wellbeing, peace, and security.

It is strongly recommended to conduct the SEA for the nine Special Economic Zones (SEZs) by involving key stakeholders including private sector. There is dire need to develop the combined biodiversity management plan at the River Basin level, based on the Strategic Environmental Assessment. Further, it is vital to consider the possible impact on various protected areas including national parks, wetlands, wildlife sanctuaries and natural forests across the route. Infrastructure and road development needs

to incorporate the biological corridors along the CPEC route. Considering the environmental safeguards and mainstreaming of environment in the CPEC initiatives is another crucial requirement. It is proposed to develop a comprehensive project to facilitate the cumulative SEA of all the 9 SEZs, for policy recommendations.

IUCN plays and intend to play a potential role in CPEC projects. It aims to act as environmental advisor, carry out biodiversity assessments, facilitating Chinese companies in implementing environmental safeguards, awareness raising campaigns, provide technical expertise, provide consultation services and policy advice. IUCN has worked on a number of projects and feasibilities, both at the government, private, and international level, and wishes to play same role in CPEC projects with the relevant stakeholders



RECOMMENDATIONS

The conference concluded with an insightful discussion among speakers and delegates aimed at designing policies and recommendations to save the country from catastrophic environmental losses as a result of CPEC's development related projects. Following important recommendations were made.

- Climate Change and environmental assessment in the form of some SEA (Strategic Environment Analysis) for all 9 Special Economic Zones (SEZs) should be carried out.
- There is need to ensure the climate change resilience development infrastructure in CPEC.
- Constructing a series of awareness raising and capacity building events on environmental and climate change issues. Also, the outcomes for CPEC need to be implemented in areas by taking all relevant stakeholders on board.
- Trainings on areas such as Clean Development Mechanism, Nationally Appropriate Mitigation Actions and Green Climate Fund are mandatory for relevant stakeholders

to tap additional source of funding for all tangible projects under CPEC.

- Biodiversity and ecotourism should be considered during project planning and implementation. Biological Corridors may be considered as an important option.
- Sustainable development can only be ensured when environmental and social externalities are accounted for.
- All SEZs should be assessed properly by carrying out detailed feasibility reports.
- Environmental laws differ from province to province. As the nine SEZs are spread across provinces, this stage the regulatory and legislative structure among the provinces should be harmonized.
- In SEZ Act, 2012, waste management is a critical segment but it should be tackled within budgetary constraints.
- All environmental laws are a part of SEZs development so all relevant authorities should be included during the SEA process. SEA gives a cumulative picture in this regard.



- Feasibility analysis for SEZs should be done. Each zone should have its specialization clearly demarcated. Also, all SEZs should be connected to near urban centers, so that SEZs can be kept sustainable.

From December 2016, SEZ are a focal point at a provincial scale. The plan for them is materializing. Based on local

endowment, industry specific to each location is being assessed. Special economic zones need to be constructed with regulations that translate into environmental safety and sustainability. This is the appropriate time to invite proposals with the ambition to transform SEZs into green SEZs, and this entire corridor into an environment friendly project.



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PICTURE GALLERY



Participants of Round Table Conference on “CPEC-A Step towards Environmentally Sustainable Special Economic Zones”.



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