TRANSFORMING MONGOLIA

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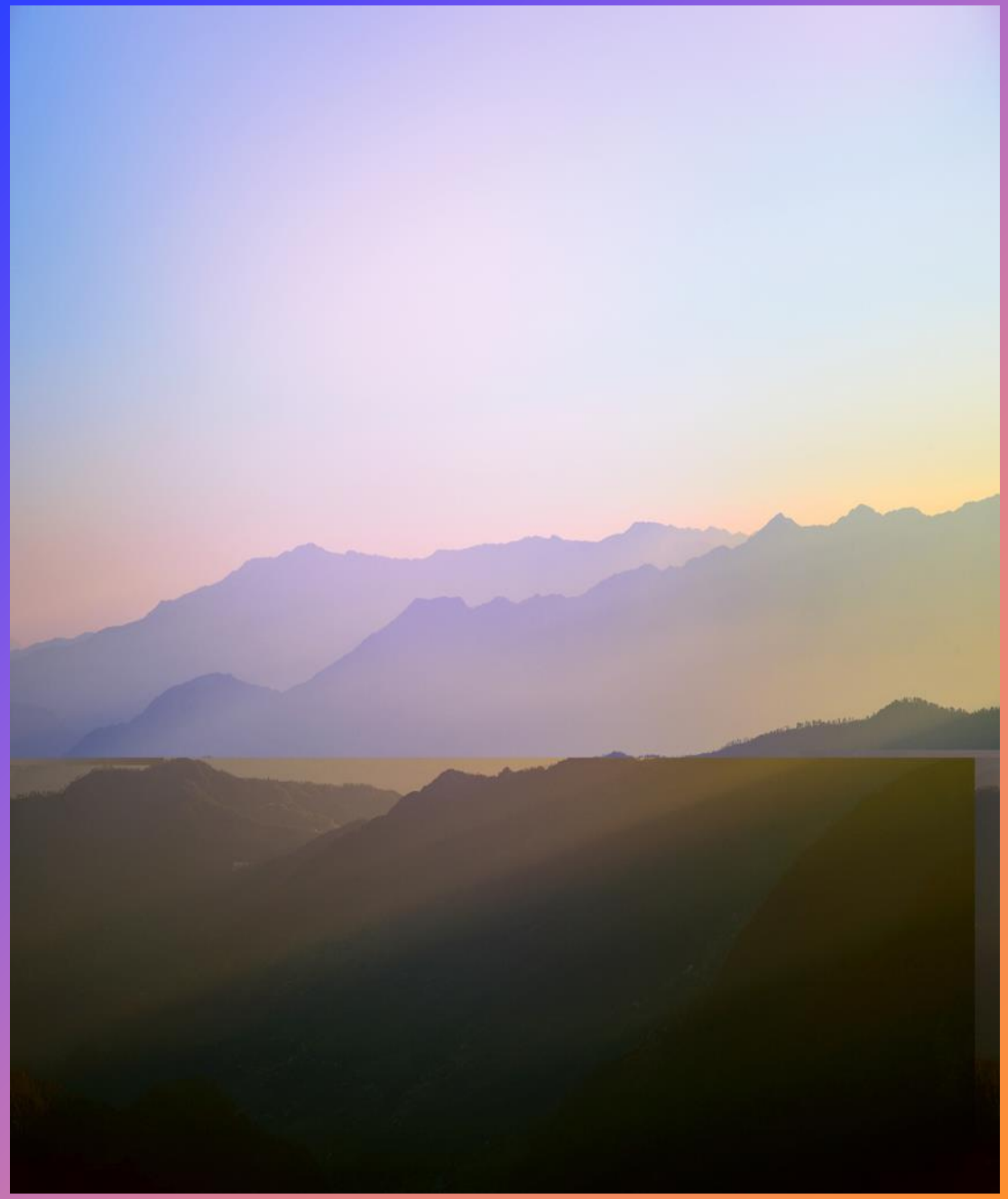


Application of AI and digital technologies in accelerating achievement of Sustainable Development Goals (SDGs) by Landlocked Developing Countries (LLDCs)

Transforming Mongolia - A Sustainable Future Through Technology

Executive Summary

Vision for Mongolia

- A future where integrated modern technology drives growth, sustainability, and equity.

Challenges for Mongolia

- Landlocked and traditional economy
- Raw materials-based export
- Limited role of technology in nation building
- Missing out on global business investment

Modern Technology in Synergy

- Digitalization
- Blockchain
- AI
- IoT
- Renewable Energy

Key Strategies

- How these technologies complement each other in modernizing economies
- Involvement of political leadership, Private Sector, UN support and FDI
- Empowerment of Mongolia’s youth

Mongolia at Crossroads

Current Economic Landscape

- Reliance on traditional sectors
- Digital divide between urban and rural.

Environmental and Social Challenges

- Environmental issues like desertification, climate change
- Social issues such as urban migration and inequality.

Role of Government, Private Sector and Youth

- How government can create an entrepreneurial environment of sustainable development in collaboration with market players and global agencies.
- The potential of Mongolia's young population to spearhead technological transformation

Digital Infrastructure as a Foundation

Impacted SDG 9

- Industry, Innovation, and Infrastructure

Nationwide Connectivity

- Importance of accessible, reliable internet for urban and rural areas.
- Infrastructure Development: The need for robust digital infrastructure as a foundation

Digital Literacy Programs

- Digital Education and Healthcare: Expanding access and improving quality through digital platforms
- Initiatives to educate the youth on digital tools, AI, and blockchain.

Innovative Policy Making

- Creating a regulatory environment that encourages digital innovation and protects users

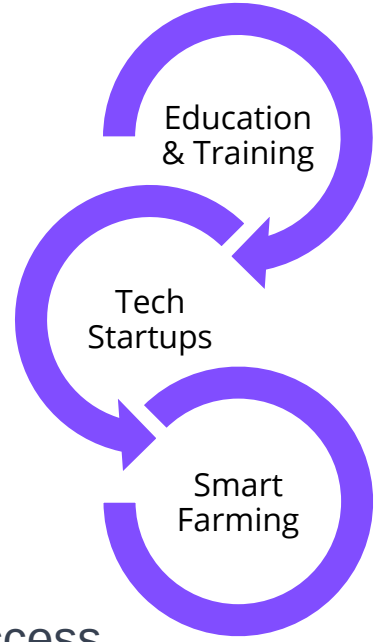
Sustainable Manufacturing with AI, IoT & Blockchain

Impacted SDG 12

- Responsible Consumption and Production

Move up the Value Chain

- Introduce value added services to transform vast raw materials into premium processed products
- Establish thriving digital ecommerce marketplace to promote the processed high grade products



Youth-Led Tech Startups

- Supporting young entrepreneurs in technology solutions for sustainable production.
- Providing government backed financing for incubating and scaling the startups
- AI to accelerate the establishment of manufacturing processes based on industry best practices

Supply Chain Optimization

- Supply Chain Optimization via Blockchain and AI to reduce waste and improve market access
- Predictive analytics and maintenance
- Remote site assessment with digital twin technology

Smart Farming and Herding Practices

Impacted SDG 2 and SDG 15

- Zero Hunger
- Life on Land

Smart Herding & Farming

- Precision Agriculture: Use AI to optimize irrigation, pest control, and crop rotation
- Yield Prediction and Land Management: AI algorithms to predict crop yields and manage land use for herding and livestock sustainably
- IoT (Internet of Things) for seamless execution and real-time analytics, feedback and upgrades.
- Mobile & Digital Trading Marketplace for farmers and livestock trading
- Land usage monitoring
- RFID Tracking of Cattle / Livestock

Blockchain for Transparent Governance

Impacted SDG 16

- Peace, Justice, and Strong Institutions

E-Government Services

- Implementing blockchain for secure, transparent public records and transactions
- E.g. Georgia's use of blockchain in land titling for secure and transparent property records
    - Utilize blockchain for land management and mineral resource tracking for fair use

Streamline Government Dealings

- Blockchain's transparency can help reduce friction and streamline government dealings

Youth in Governance

- Encouraging young innovators to develop and implement blockchain solutions in public services

Environmental Conservation Through Technology

Impacted SDG 6 and SDG 13

- Clean Water and Sanitation
- Climate Action

AI for Biodiversity

- AI-driven monitoring systems for endangered species and habitat conservation

Blockchain and AI for Natural Resources

- Implementing blockchain to ensure sustainable and transparent use of natural resources
- AI and IoT tools for sustainable mining, water management - quality, infrastructure, utilization
- Blockchain for Water Rights. AI for Smart Sanitation, Wastewater Treatment

Climate Change Mitigation

- Utilize AI for forecasting and managing climate risks

Youth Participation

- Engaging students and young professionals in developing tech solutions for environmental conservation

Renewable Energy Transformation

Impacted SDG 7

- Affordable and Clean Energy

Mongolia's Renewable Energy Resources

- Wind Energy
- Uranium and other rare elements critical for clean nuclear energy
- Renewable energy sources in Mongolia's sustainable development

Example

- Morocco's Noor Ouarzazate Solar Complex can be seen as a benchmark in harnessing solar energy

Application in Mongolia

- Development of solar and wind projects in the Gobi Desert, supported by PPPs and FDI

Enhancing Services with Technology

Impacted SDG 3 and SDG 4

- Ensuring Good Health and Well-being
- Quality Education

Technology can help accelerate and scaling service delivery

- Healthcare Revolution: AI for diagnostics and treatment, blockchain for patient records.
  - Rwanda's use of AI in healthcare diagnostics and treatment
  - Can have AI-driven projects for remote medical diagnostics and precision agriculture, backed by UN technical assistance
- Educational Transformation: Digital platforms for personalized learning, AI tutors, and blockchain for certification verification.
- Inclusive Financial Services: Using technology to extend financial inclusion, with a focus on blockchain for secure transaction

Public-Private Partnership

PPP can provide financial, technical, and strategic support	
Financing & Investment	• Mobilize capital for large scale infrastructure projects – digital infrastructure, renewable energy, smart cities • Lay the groundwork for technology driven development
Technology Transfer & Expertise	• Usage of Best Practices and Advanced technological expertise and innovation. • Through PPPs, this knowledge can be shared with public entities, enhancing the technological capabilities of government services, healthcare, education, and environmental conservation
Operational Efficiency	• Their operational efficiency and experience can help ensure that development projects are completed on time, within budget, and with the desired impact • Increasing the effectiveness of public services
Risk Sharing	• Sharing of risks between the public and private sectors • Allows to undertake ambitious projects including those involving cutting-edge technologies.
Youth Engagement	• Can focus on initiatives that create opportunities for Mongolia's youth, such as internships, training programs, and innovation hubs, fostering a new generation of tech-savvy leaders and entrepreneurs
Example	• Kazakhstan: Western Europe-Western China International Transit Corridor • Bolivia: El Mutún Iron Ore Project

Conclusion: Digital Transformation Road Ahead

Accelerating achievement of Sustainable Development Goals (SDGs) by LLDCs

Immediate Actions

Short-term strategies for infrastructure and education

Building Momentum

Medium-term goals for integrating technology into key sectors

Long Term Vision

A sustainable, developed Mongolia powered by technology and led by an innovative youth

Call to Action

It is imperative to leverage the transformative power of blockchain, digitalization, and AI.

Call to Action: Encourage stakeholders to commit to a tech-driven development strategy

Mobilizing the Youth: Encouraging Mongolia's young population to lead the charge in adopting and innovating with these technologies

TECH MONGOLIA

THANK YOU

APPENDIX

Extra slides

Creating a Digital Economy & Innovation Ecosystem

- Digitalization Drive
  - Digital infrastructure can serve as the backbone for modernizing Mongolia
  - Example: Estonia's e-Residency program as a model for digital governance.
  - Application in Mongolia: A nationwide initiative to digitalize public services, enhancing efficiency and transparency
- Startup Ecosystem and Favorable Investment Climate:
  - Encouraging tech entrepreneurship and innovation.
  - Creating an attractive investment climate for technology-driven development
  - Fostering a supportive environment for technology startups, with a focus on youth-led initiatives
  - Example: Singapore's success in attracting FDI through a favorable regulatory environment and strong infrastructure.
  - Application in Mongolia: Propose reforms and incentives to attract tech companies and investments in renewable energy and digital infrastructure projects.
- Digital Skills Training:
  - Programs to equip the workforce with digital and AI skills.
  - Example: Finland's national AI education program as a model for broad-based tech literacy
  - Application in Mongolia: Launch a nationwide initiative in digital literacy and AI, focusing on inclusivity and access for all, including rural populations
- Investment in R&D:
  - Funding research in AI and digital technologies, fostering innovation.
  - Government and private sector investment in research, focusing on universities and youth-led projects

Overcoming Challenges

- Bridging the Digital Divide:
  - Strategies to ensure equal access to technology for all Mongolians.
  - Addressing the urban-rural divide in access to technology
- Financial Feasibility
  - Attract investors
- Ensuring Data Privacy and Security:
  - Building trust in digital systems with robust protections.
- Ethical Considerations:
  - Educating the next generation on the ethical use of technology.
  - Finding a balance between growth and sustainability

Public-Private Partnership

Examples

Digital Infrastructure Development

- Example: A PPP between the Mongolian government and a global telecommunications company to expand high-speed internet access across rural and urban areas. This initiative could be modeled after Rwanda's successful partnership with Korea Telecom, which aimed to provide nationwide 4G internet access, significantly boosting the digital economy and access to e-services

Smart Agriculture Projects

- Example: Collaboration between the Ministry of Agriculture, technology startups, and international agribusiness firms to introduce precision farming techniques. This could involve the use of AI for soil analysis and crop monitoring, similar to the "Digital Farming" initiative in India, where technology helped increase crop yields and farmers' incomes

Renewable Energy Initiatives for Rural Electrification

- Example: A PPP to develop solar power plants or wind farms, akin to the Lake Turkana Wind Power project in Kenya, which is Africa's largest wind energy project and was developed through a partnership model. Such projects in Mongolia would not only provide clean energy but also create jobs and stimulate local economies