



Nascent SEA in Arabian Peninsula

Challenges and Hopes and AI Potential





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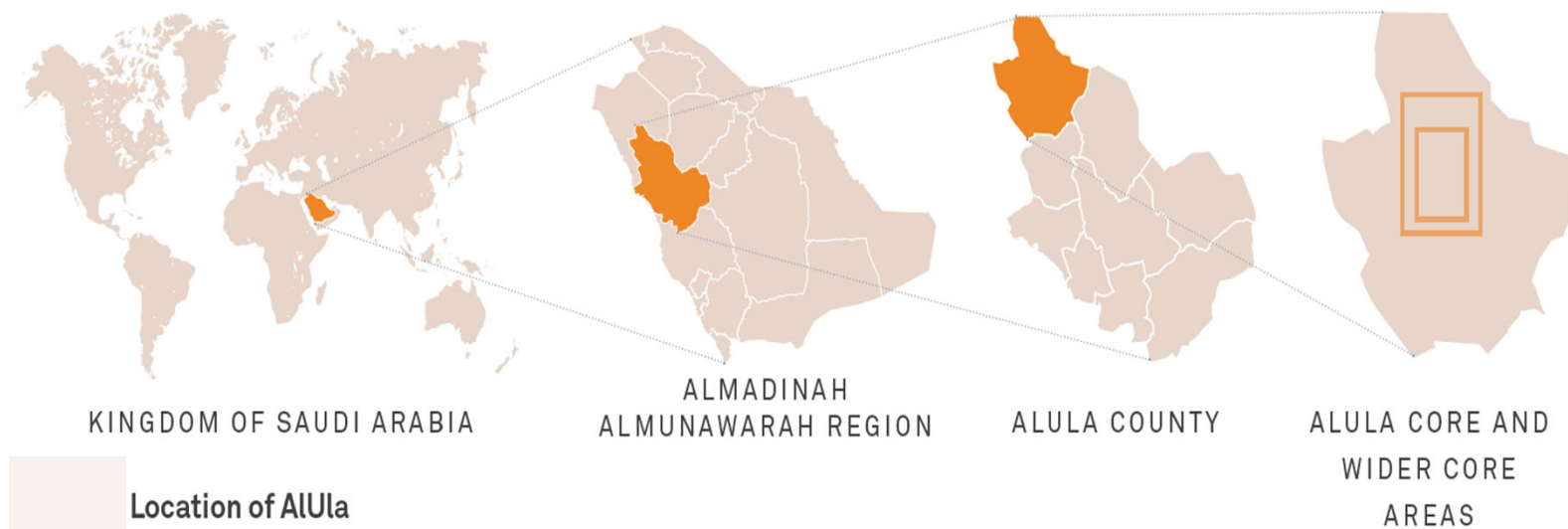




CONTEXT

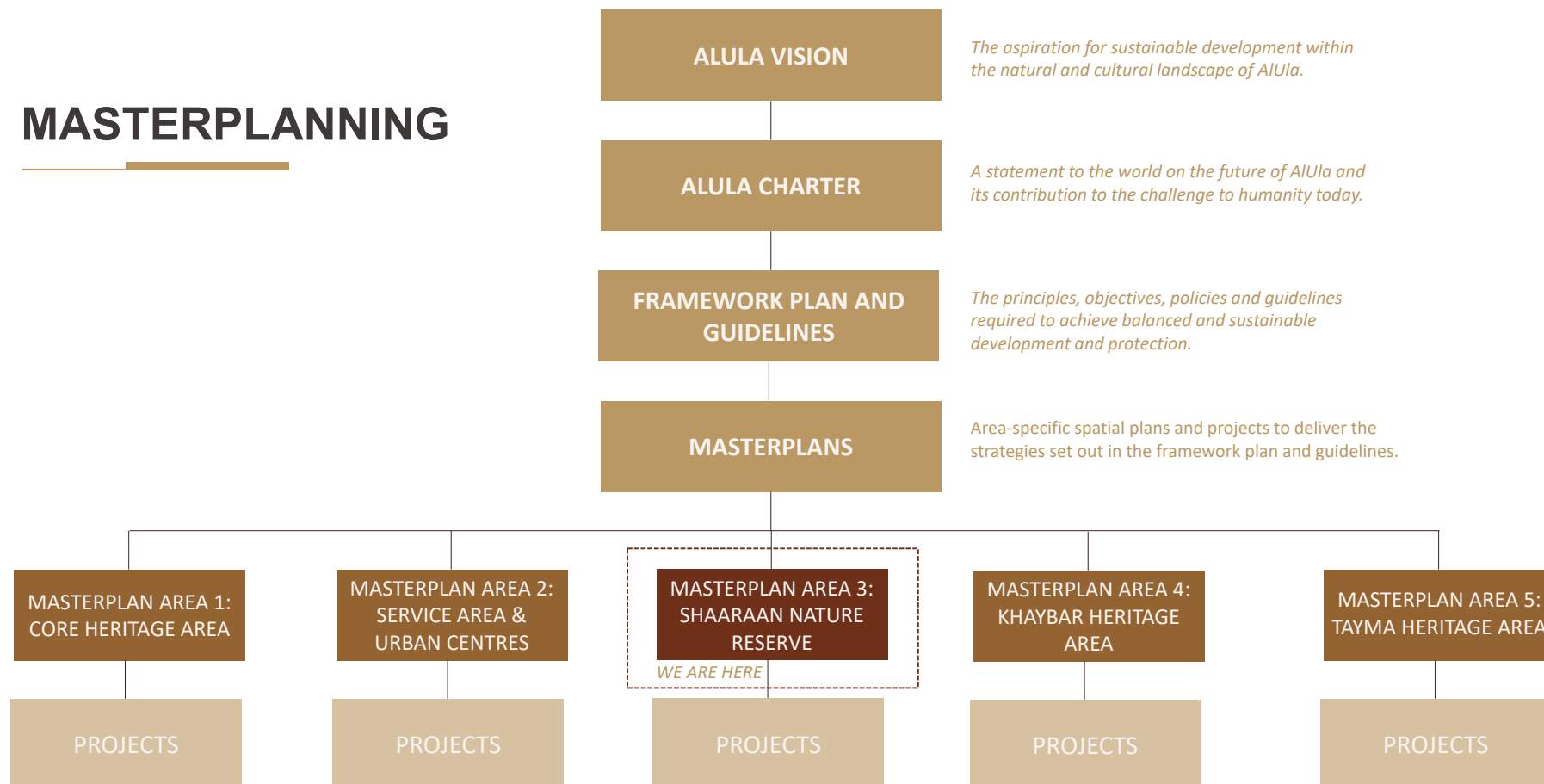


WORLD MAP AND ALULA COUNTY





MASTERPLANNING





Framework Principles



01 SAFEGUARD THE NATURAL AND CULTURAL LANDS

Protect diverse and sensitive heritage and cultural assets of AlUla as a source of national pride and integrate AlUla with villidz.



02 CELEBRATE HERITAGE, CULTURAL AND ARTS AS A GLOBAL DESTINATION

Highlight AlUla's value-to-nation by integrating heritage sites, arts, and cultural elements to developments in developments ensuring nature-based solutions.



04 SUSTAIN ECOSYSTEMS AND WILDLIFE

Plan development around natural ecosystems to ensure biodiversity and long-term health using natural/basalt corridors.



05 MAINTAIN BALANCED AGRICULTURE

Support local agriculture in heritage and natural areas across AlUla through sustainable farming practices.



06 DEVELOP LIGHT TOUCH TOURISM

Secure sustainable, low-density tourism offerings across AlUla with a focus on minimal disturbance to surroundings.



06 ENSURE SERVICE CONTINUITY AND ACCESSIBILITY

Require sustained service continuity and accessibility across AlUla through planning and extensive networks linking townships.



REVITALIZE, RESTORE, AND REGENERATE THE BUILT ENVIRONMENT

Revitalize, replace, and repurpose the built environment of AlUla to expand archaeological areas and create contemporary walkable towns, such as restag.



08 ENABLE THE LOCAL COMMUNITY

Integrate AlUla's people in all manner of activities allowing their direct participation, and create meaningful job opportunities with respect for social norms.



INCORPORATE IMAGINATIVE INFRASTRUCTURE IN ALL SYSTEMS

Employ imaginative design in infrastructure for all energy systems enabling circular strategies for self-sufficient housing and presence.



10 INTEGRATE INVISIBLE SECURITY

Incorporate 21st Century ethical design standards to ensure a safe and secure environment in an unobtrusive way.



DESIGN SAFE & HEALTHY ENVIRONMENTS WITHIN THE CIRCULAR ECONOMY

Integrate passive design principles and advanced materials to eliminate waste and pollution using circular economy principles.



12 EMBOD RESILIENCE

Hazard evaluations identifying principles, plans, and future developments to enable resilience and adaptability across AlUla



Statement of AlUla

Framework Plan

► County level

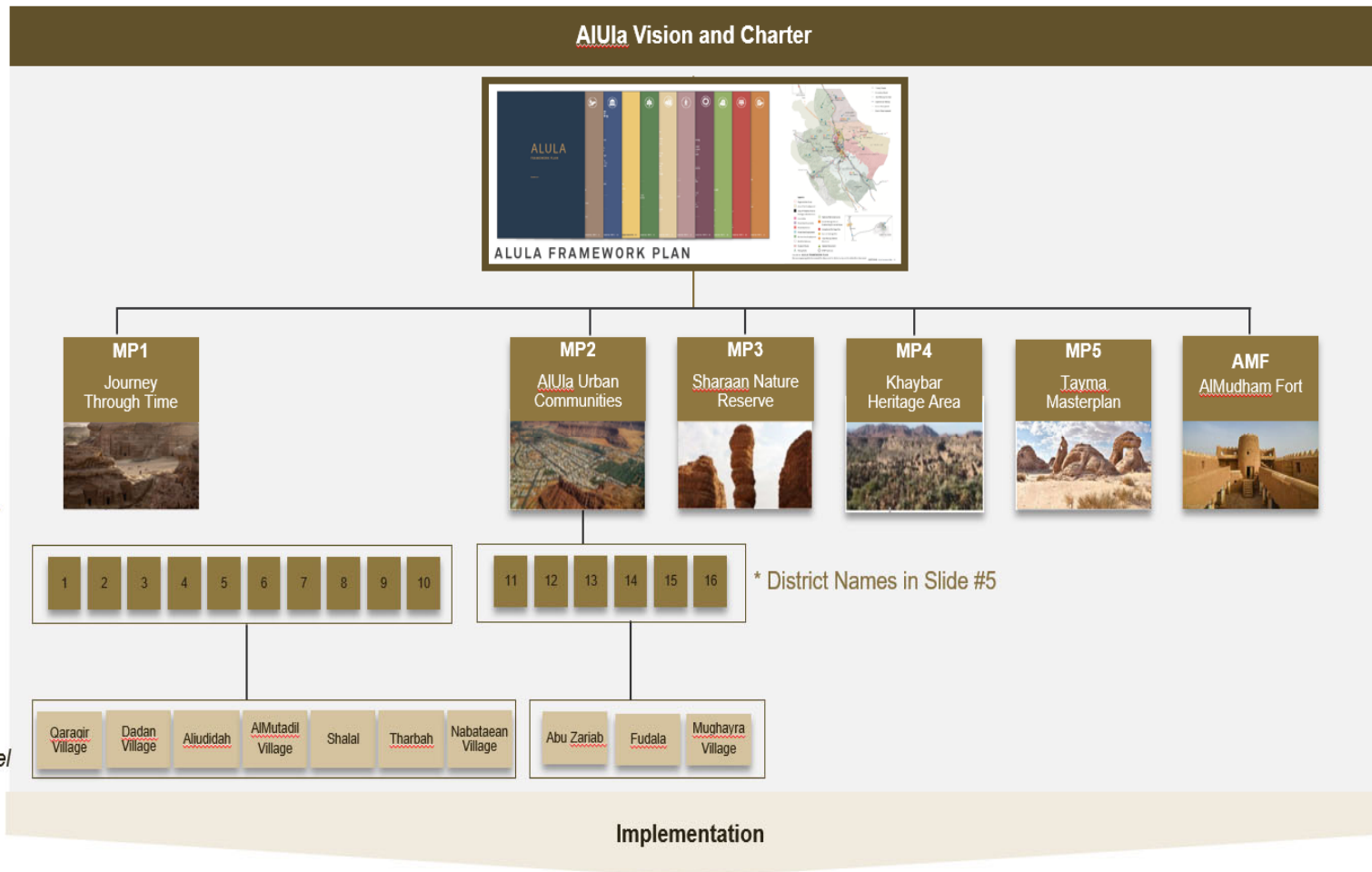
Structure Plan

► Sector level

Detailed Master Plan

► District level

► Sub-District Level

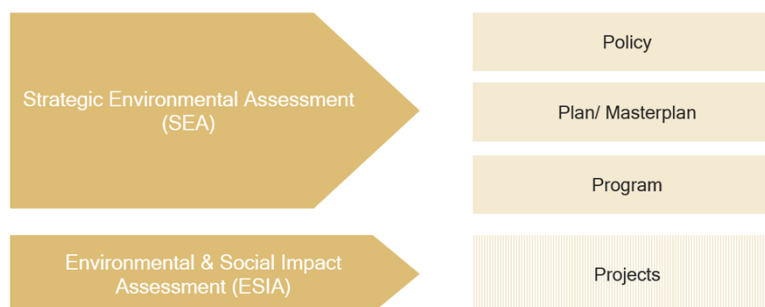




Strategic Environmental Assessment

SEA is a systematic process for **evaluating the environmental impacts** of proposed **plans / policies / programs** to ensure that environmental considerations are fully integrated and addressed at the earliest appropriate stage of decision-making, in view of promoting sustainable development at the outset of planning processes.

Impact Assessment Levels to Inform Decision-Making





National Requirements

MEWA has legislated SEA and provided SEA Methodology (Dec. 2023)

Transfer of Authority MEWA > RCU

Demonstrate readiness to self-regulate SEA within RCU

Formalize the process with benchmarking, process manual, and guidelines / regulation per analysis

Work with WB, PPD, OE and key stakeholders

Apply to Plans, Policies and Programs following a screening to identify if SEA or SEA Change Assessment / Rapid SEA is triggered

وزارة البيئة والمياه والزراعة
Ministry of Environment Water & Agriculture
المملكة العربية السعودية Kingdom of Saudi Arabia



منهجية المملكة العربية السعودية لدراسة التقييم البيئي
الاستراتيجي





SEA and RCU Planning

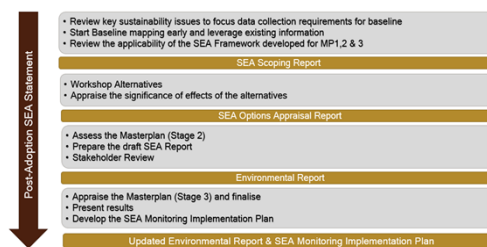
Exemptions

In accordance with MEWA, certain SEA-triggered PPPs are exempt; or some may not trigger SEA processes at all.

Full SEA

New Structure Masterplans; areas not previously-assessed.
Criteria for other PPPs currently being refined.

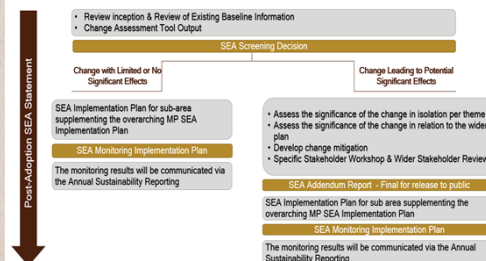
FULL SEA FOR CONCEPT NEW MASTERPLANS



Change Assessment

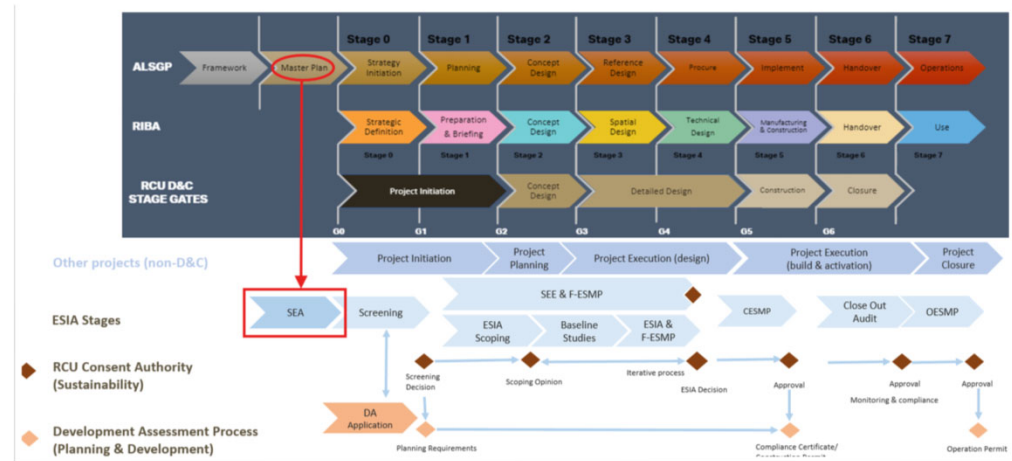
Only for Masterplanning: masterplans that fall within areas previously-assessed.

CHANGE ASSESSMENT FOR DETAILED MASTERPLANS





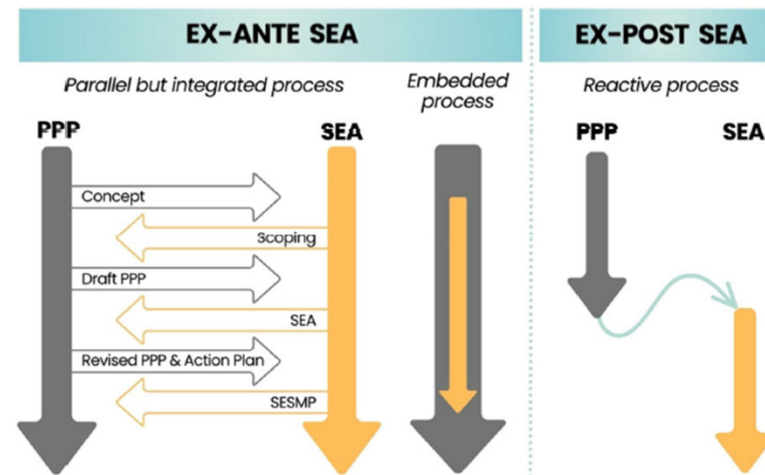
RIBA Stages





Timing the SEA

Ex-Ante SEA (preferred) versus Ex-Post SEA



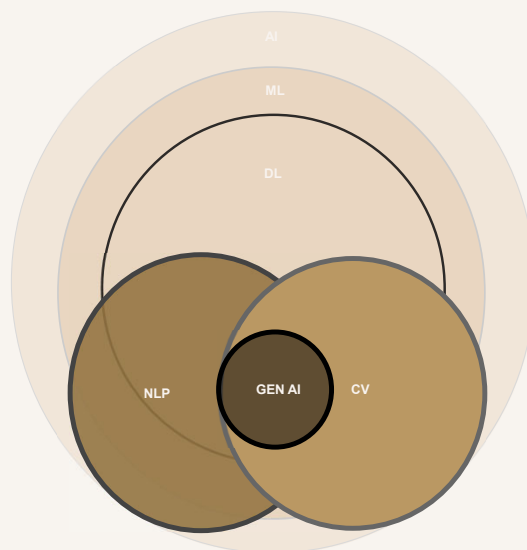
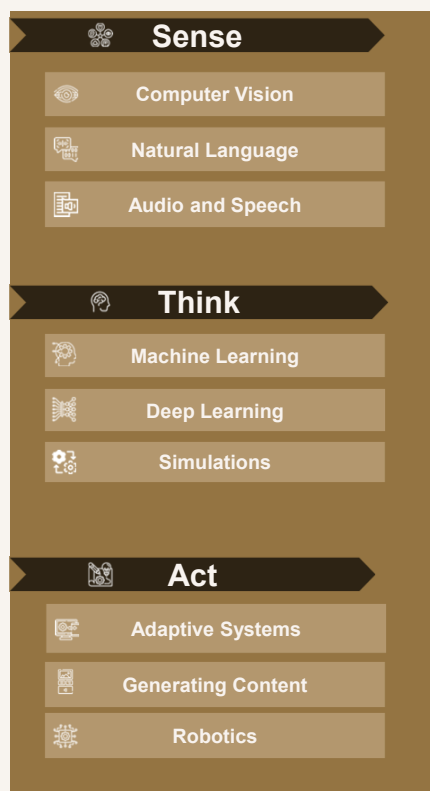


RCU and Digital / AI





AI offers solutions to support AIUla and RCU enterprise



NATURAL LANGUAGE PROCESSING (NLP)

A field of AI that enables computers to understand, interpret, and respond to human language in a meaningful way.

COMPUTER VISION (CV)

A field of AI that enables computers to interpret and understand visual information from the world, such as images and videos.

GENERATIVE AI (GEN AI)

Algorithms that use large amount of data & large models to generate text, video, image, code, audio and video content.

ARTIFICIAL INTELLIGENCE (AI)

An umbrella term for computer programs that can make independent decisions based on supervised and unsupervised learning.

MACHINE LEARNING (ML)

The most common type of AI, where a machine makes independent decisions but still needs a human to guide it and correct its mistakes.

DEEP LEARNING (DL)

Machine decides on whether its predictions are right or wrong based —it learns through its own method of computing.



Way Forward

Wave 1



Wave 2



Wave 3





CLOSURE



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Let's continue the conversation!

Message me your questions or comments in the IAIA25 app.



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