# CONSULTATION PAPER Proposed Rang Undang-Undang Perubahan Iklim Negara ("RUUPIN") Date of Issue: *4th October 2024*

The Ministry of Natural Resources and Environmental Sustainability invites your comments on the proposed Climate Change Bill hereinafter referred to as Rang Undang-Undang Perubahan Iklim Negara ("**RUUPIN**") set out in this Consultation Paper within one month from the date of issuance of this consultation paper. Responses can be made to via the following:

**Email:** rd.bpi@nres.gov.my

*Copy (cc) to:* MYFAProjectRUUPIN@deloitte.com

**Attention:** Policy and Negotiation Unit, Climate Change Division, Ministry of Natural Resources and Environmental Sustainability

Alternatively, by mail:

#### Unit Rundingan dan Dasar, Bahagian Perubahan Iklim (BPI)

Kementerian Sumber Asli dan Kelestarian Alam (NRES) Tingkat 5, Blok F11, Kompleks F Lebuh Perdana Timur, Presint 1 62000 Putrajaya, Malaysia

Please provide your name and the Government body you represent (where applicable), and provide reference on the section(s) of the Consultation Paper you are commenting on in **Appendix A.** 

If you have any queries in relation to this Consultation Paper, kindly contact us at the email address above.

**Confidentiality:** Your responses may be made public by the Ministry of Natural Resources and Environmental Sustainability. If you do not want all or any part of your response or name made public, please state this clearly in the response. Any confidentiality disclaimer that may be generated by your organisation's IT system will be taken to apply only if you request that the information remain confidential.

# TABLE OF CONTENT

Α.	INTRODUCTION	3
Β.	PRINCIPLES AND HIGH-LEVEL FRAMEWORK OF THE RUUPIN	4
	Objectives	4
	The Guiding Principles of RUUPIN Development	4
	Powers of Minister of NRES	5
C.	THE PROPOSED RANG UNDANG-UNDANG PERUBAHAN IKLIM ("RUUPIN")	5
	Salient Provisions of the RUUPIN	7
	Definitions [Part 1]	8
	Setting of National Targets [Part 2]	8
	The Establishment of a Regulatory Entity [Part 3]	8
	The Development of a National Integrated Climate Data Repository ("NICDR") [Part 4]	9
	The Regulation of Carbon Trading Mechanism [Part 5]10	С
	Establishing a National Registry for Climate Change ("NRCC") [Part 5]	C
	The Creation of a National Climate Fund [Part 6]1	1
	Reporting [Part 7]1	1
	Compliance and Enforcement [Part 8]12	2
	General provisions [Part 9]13	3
D.	CONCLUSION13	3
E.	APPENDIX A – TABLE OF COMMENTS14	4

# A. INTRODUCTION

1. The Ministry of Natural Resources and Environmental Sustainability ("NRES") is the National focal point to the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement. As the National Focal Point, NRES's role is to ensure obligations under the UNFCCC and operationalisation of the articles under the Paris Agreement at the domestic level are effectively executed. Among Malaysia's main obligations under the Paris Agreement is to ensure submission of Nationally Determined Contribution (NDC) every 5 years. In 2021, Malaysia has pledged to unconditional target to cut carbon intensity against GDP by 45% by 2030 compared to 2005 levels.

2. NRES is also the responsible Ministry to spearhead Malaysia's climate change agenda by coordinating climate related policies which address key elements of the transition to a low-carbon economy and strengthening the country's resilience to the impacts of climate change. As Malaysia transitions towards a low carbon economy, policies set by NRES focuses on mainstreaming mitigation and adaptation initiatives in government plans and policies which require cooperation from other ministries and state governments in various sectors (e.g.: Energy, Industrial Process and Product Use (IPPU), Agriculture, Waste and Land Use, Land Use Change and Forestry (LULUCF).

3. Currently, there is no specific legislation on climate change. Thus, under the 12<sup>th</sup> Malaysia Plan (RMKe-12) initiative, NRES intends to formulate a Climate Change Bill or Rang Undang-Undang Perubahan Iklim ("RUUPIN"), which once passed will subsequently be enacted as the Climate Change Act. In this regard, NRES has been mandated to develop the RUUPIN to enhance Malaysia's climate change governance at the international and domestic level. Furthermore, the RUUPIN also aims to:

- (i) facilitate national climate change agenda on transitioning to a low-carbon economy;
- (ii) strengthens the country's resilience towards climate change impacts;
- (iii) establish an independent authority as the Regulatory Entity to carry out operational functions in accordance with national climate change ambition;
- (iv) institutionalise climate change governance including matters related to data management reporting, funding and financing and enforcement;
- (v) enable related compliance mechanisms for effective implementation of climate measures;
- (vi) enable emission reduction mechanisms; and
- (vii) other climate change element as set out in the RUUPIN.

4. RUUPIN adopts a whole-nation approach in the process of its development by seeking feedback from all segments of society including Federal Ministries and Agencies, State Governments, Private Sectors, Non-Governmental Organisations (NGOs), citizens and other

relevant stakeholders which has a role in tackling climate change according to their jurisdictions.

5. Hence, this Consultation Paper is prepared to seek views and comments from the relevant stakeholders mentioned above. This Consultation Paper also provides a comprehensive overview of the RUUPIN framework, divided into parts as per below:

- (i) **Part B** details the guiding principles and a high-level overview of the RUUPIN framework; and
- (ii) **Part C** outlines the proposed salient provisions of the draft RUUPIN.

# B. PRINCIPLES AND HIGH-LEVEL FRAMEWORK OF THE RUUPIN

# <u>Objectives</u>

- 6. Objectives of the RUUPIN are:
  - (i) to provide clear guidance for stakeholders on matters pertaining to climate change governance;
  - (ii) to assist in achieving Malaysia's commitments under the Paris Agreement;
  - (iii) to ensure effective operationalisation of the Paris agreement;
  - (iv) to serve as an instrument to effectively implement climate mitigation and adaptation plans in Malaysia;
  - (v) to set the direction for Malaysia's climate change agenda moving forward; and
  - (vi) to increase cooperation among stakeholders and ensure responsible entities within their jurisdiction fulfils their roles in addressing climate change issues.

7. It is intended that the RUUPIN will act as an **umbrella legislation** that governs all relevant climate change related issues and should be applied throughout Malaysia.

8. RUUPIN is intended to complement existing regulations and policies by providing a supporting framework for future climate related legislations and regulations at national and subnational level.

# The Guiding Principles of RUUPIN Development

9. The guiding principles of RUUPIN will be driven by either Rules-based or Principlesbased or hybrid of both. Rules-based means a method of decision-making or regulation that relies on predetermined, explicit rules to ensure consistency, transparency, and predictability. Principles-based means a method of decision-making or regulation that emphasises broad, overarching guidelines and professional judgment to achieve desired outcomes, allowing for flexibility and adaptation to specific situations.

10. RUUPIN provides a legal framework to advance Malaysia's contribution to international climate action under the principle of Common but Differentiated Responsibilities (CBDR). This framework also fosters a collaborative, whole-of-nation approach that engages all levels of stakeholders, while prioritising a fair and equitable transition to a low-carbon economy.

11. At the domestic level, the RUUPIN will also complement existing laws and initiatives and ensures its implementation aligns with the nation's aspirations and economic goals while ensuring international obligations are met.

# Powers of Minister of NRES

12. RUUPIN provides the legal foundation to carry out Malaysia's international commitments in particular under the Paris Agreement. This entails empowering the Minister to carry out critical functions including but not limited to as listed below:

- (i) To carry out any functions, in any context to achieve the objectives of NDC, LT-LEDS and any objectives of future treaties relevant to climate change;
- (ii) To set and/or adopt targets, definition, standards, and emission reductions mechanisms to achieve national climate commitments;
- (iii) To gather data and information, in any context to achieve the objectives of NDC, LT-LEDS and any objectives of future treaties relevant to climate change;
- (iv) To formulate national guidelines on reporting to ensure the accuracy and relevance of the data collection and reporting;
- To develop and formulate policies and strategies for national decarbonisation and transition towards a low carbon development and adapting to the effects of climate change;
- (vi) To establish emission reductions mechanism to promote emission reduction including offset mechanism such as those under Article 6 of the Paris Agreement, Emission Trading Schemes including allocation, auction, allowance sale, trade, and facilitation of an international emission reduction cooperation mechanism, Voluntary Carbon Markets and others deemed necessary; and
- (vii) To devolve by order, any of his/her powers, duties, and functions under this Act with respect to data and information disclosure to any competent authority, including a Regulatory Entity, and/or other authorities at National- and State-level to enforce the RUUPIN.

# C. THE PROPOSED RANG UNDANG-UNDANG PERUBAHAN IKLIM ("RUUPIN")

13. The proposed table of contents of the RUUPIN will be broadly structured in the following manner:

Arrangement of Clauses	Title	Key Elements
Part 1	Preliminary	<ul> <li>Short title and commencement</li> <li>Interpretation</li> <li>Definitions (including interpretation of UNFCCC and Paris Agreement mandates)</li> </ul>
Part 2	Greenhouse Gas Emissions Target	<ul> <li>Setting the National Targets for Greenhouse Gas Emissions Reduction</li> <li>Power of Minister to amend the Targets</li> </ul>
Part 3	Regulatory Entity	<ul><li>Establishment, Membership</li><li>Powers and Functions</li></ul>
Part 4	National Integrated Climate Data Repository	<ul> <li>Creation of National Integrated Data Repository for Climate Change (NICDR)</li> <li>Administration of NICDR</li> <li>Guidelines for management of data and information</li> </ul>
Part 5	Emission Reductions Mechanism	<ul> <li>Establishment and regulation of emission reductions mechanism</li> <li>Creation of National Carbon Registry</li> </ul>
Part 6	Financial Provisions	<ul> <li>Creation of National Climate Fund</li> <li>Expenditure to be Charged to the Fund</li> <li>Administration of the Fund</li> </ul>
Part 7	Reporting	<ul> <li>Designation of reporting authorities</li> <li>Reporting obligation of entities to Regulatory Entity on greenhouse gas (GHG) emissions (including facilities (as applicable)</li> <li>Reporting on greenhouse gas emissions</li> <li>Guidelines on reporting</li> <li>Frequency of report to be submitted</li> <li>Reporting of all other matters related to UNFCCC.</li> </ul>
Part 8	Offences, Penalties and Powers relating to Enforcement	<ul> <li>Offences and penalties</li> <li>Appointment of enforcement/investigating officers</li> <li>Powers to investigate, compound etc.</li> </ul>

Arrangement of Clauses	Title	Key Elements
Part 9	General	Audit
	Provisions	<ul> <li>Protection against suits and legal proceedings</li> </ul>
		Prosecution
		Attempts and Abetments
		Liabilities
		• Power to amend to comply with UNFCCC.

#### Salient Provisions of the RUUPIN

14. At the date of this Consultation Paper, it is proposed that the RUUPIN set out the following subject matters:

- (i) formulation and implementation of national targets, providing clear benchmarks for emission reductions and sustainable practices;
- (ii) definitions such as greenhouse gases, carbon emissions, carbon credit units, carbon dioxide equivalent, etc.;
- (iii) the establishment of a Regulatory Entity to administer, implement and enforce the Climate Change Act;
- (iv) mandating data and information requirements through the development of a National Integrated Climate Data Repository (NICDR), ensuring regular submission of climate-related data, progress towards targets and financial disclosures as required by the Minister;
- (v) the establishment and guidelines or regulation for carbon trading and emission trading schemes (ETS) and other mechanism to effectively reduce or offset emission;
- (vi) establishing a National Registry for Climate Change (NRCC);
- (vii) the creation of a National Climate Fund to support climate change initiatives; and
- (viii) compliance and enforcement mechanisms, including penalties, sanctions and others to ensure adherence to the established climate change and policies and legislations.

15. Salient provisions at this juncture are indicative and subject to change dependent on the following:

- (i) inputs from stakeholder engagement which includes Federal Ministries and Agencies, State Governments, Private Sectors, Non-Governmental Organisations (NGOs), citizens and other relevant stakeholders;
- (ii) compilation and analysis of responses from this consultation paper;
- (iii) further analysis emerging from emerging trends, new developments; and
- (iv) revisions based on the above.

# Definitions [Part 1]

16. The RUUPIN shall provide definitions to greenhouse gases, carbon dioxide, carbon equivalent, allowances, carbon credit unit and other related definitions based on international standards and guidance such as UNFCCC or as advised by the National Carbon Market Policy for the carbon market and its elements in order to align with the existing regulations and policies to minimise confusion and foster coordinated efforts.

#### Setting of National Targets [Part 2]

17. The Minister of NRES may set targets at the National level, with approval from Malaysia Cabinet in line with Malaysia's Nationally Determined Contribution (NDC) and (Long-Term Low Emissions Development Strategies (LT-LEDS).

18. The Minister of NRES or any entity designated by the Minister of NRES shall monitor the implementation of the activities contained in the NDC and LT-LEDS set at the national level for the purpose of meeting the targets and objectives of this act.

# The Establishment of a Regulatory Entity [Part 3]

19. The administration of the proposed Climate Change Act will be carried out by an entity to be established as a Regulatory Entity under the RUUPIN. The envisage Regulatory Entity, would be able to focus on administration, implementation and enforcement of the proposed Climate Change Act. In addition, the Regulatory Entity would be able to provide for a more strategic implementation and coordination among stakeholders to address Malaysia's climate change responses. Such Regulatory Entity could foster a more unified and impactful national strategy by acting as a central hub for communication and collaboration amongst diverse stakeholders, including Government Agencies, State Governments, the private sectors and other relevant stakeholders.

20. The Regulatory Entity is proposed to be established under the purview of NRES, to carry out operational functions in accordance with national climate change ambition for the purpose of meeting existing and future mitigation and adaptation policies including, but not limited to the National Climate Change Policy 2.0, NDC Roadmap and Action Plan, LT-LEDS, National Carbon Market Policy, Malaysia's National Adaptation Plan (MyNAP) and others.

21. The RUUPIN empowers the Regulatory Entity to perform the following key functions including but not limited to:

 (i) operationalise emission reductions mechanism to promote emission reduction including offset mechanism such as those under Article 6 of the Paris Agreement, Emission Trading Schemes including allocation, auction, allowance sale, trade, and facilitation of an international emission reduction cooperation mechanism, Voluntary Carbon Markets and others deemed necessary;

- (ii) institutionalise data management and reporting; including enforcing mandatory reporting obligations for greenhouse gas (GHG) emissions data across various sectors;
- (iii) administer the criteria and permit/allow participation in the compliance market or other market-based initiatives
- (iv) manage the registration and accreditation of carbon offset projects, renewable energy initiatives, and other climate related activities;
- develop comprehensive guidelines and standards for the registration and operation of carbon trading mechanisms, ensuring compliance with the Paris Agreement, the UNFCCC, or any subsequent international climate change treaties;
- (vi) provide independent advice and recommendations on climate change policies and strategies to government agencies, state government and other related stakeholders;
- (vii) facilitate and coordinate funding of climate related initiatives; and
- (viii) implement Communication, Education and Public Awareness (CEPA) initiatives.

# The Development of a National Integrated Climate Data Repository ("NICDR") [Part 4]

22. At present, Malaysia has not instituted a formal framework for the disclosure and collection of climate-related data and information. The absence of a structured system has led to an inefficient and fragmented approach, often ad hoc in nature, which has resulted in inconsistencies and a lack of standardisation in the data submitted. This fragmentation, characterised by differing types and measurement formats, impairs the comparability and reliability of the information collected.

23. The proposed formation of the National Integrated Climate Data Repository (NICDR) acts as an integrated platform to monitor necessary actions to address climate change issues. NICDR modernises the way Malaysia will store, analyse, integrate, track, monitor, report and present climate actions and reporting.

24. RUUPIN will outline clear deadlines and frequency for data submission to the NICDR. The Minister will devolve its power to the Regulatory Entity to hold a central data repository that integrates information from all sources, including but not limited to (i) GHG emissions data; (ii) climate impact and vulnerability assessments; (iii) adaptation and mitigation projects data; and (iv) socioeconomic data relevant to climate change and its risks.

25. RUUPIN aims to establish clear obligations and expectations of responsible parties involved to enable climate data disclosure and promote data sharing at the national, sub national and facility level to achieve the objective of the provisions under RUUPIN. Such efforts might include formalised data sharing arrangements with data providers to encourage a structured and accountable approach to data sharing or other best practices

with the ideal of expanding the range of data providers to improve overall robustness of National GHG reporting. It also allows for facility level data monitoring which is a crucial element of the proposed domestic emission trading scheme under RUUPIN.

26. RUUPIN mandates data input not only from the sectors of Energy, LULUCF, IPPU, Waste, and Agriculture but also from all States. This inclusive approach ensures that the climate data landscape is representative of the entire nation, capturing the diverse sources of emissions and vulnerabilities across different regions and industries.

27. The NICDR is an open concept and is subjected to further refinement based on stakeholders' views and operational viability.

#### The Regulation of Carbon Trading Mechanism [Part 5]

28. Operationalising Article 6 of the Paris Agreement allows countries to collaborate in achieving their NDC by trading emission reduction units recognized as Internationally Transferred Mitigation Outcomes (ITMOs) through cooperative approach with other parties and/or through a crediting mechanism established under Article 6.4. Therefore, RUUPIN intends to regulate processes related to the authorizing, reporting, tracking and other matters related to ITMOs as per UNFCCC guidance, rules, modalities and procedures.

29. The establishment of a Domestic Emissions Trading Scheme (ETS) which entails an emission threshold at the facility level enables facilities to manage and trade their greenhouse gas emissions allowances, ensuring compliance with the set emission threshold while promoting economic flexibility and incentivizing emission reductions.

30. The Authority is expected to develop and administer the criteria for permitting entities (companies, projects, etc.) to participate in the ETS.

31. It is also expected that under this provision, RUUPIN will establish a new process deemed necessary to achieve the objective of this provision or any other provision under RUUPIN while complementing or leveraging on existing international standards/practice.

32. The provision(s) under this part is also subjected to recommendation from Malaysia's Carbon Market Policy and stakeholders' inputs.

# Establishing a National Registry for Climate Change ("NRCC") [Part 5]

33. By establishing a robust NRCC, Malaysia will be well-positioned to actively participate in the global carbon market, incentivise emissions reductions, and accelerate its transition towards a low-carbon and climate-resilient economy. To prepare for a robust compliance market which align with global practices, Malaysia should prioritise the development of a

NRCC, and establishment of Measurement, Reporting, Verification (MRV) and Monitoring & Evaluation (M&E) systems. This system will enhance transparency, efficiency, and trust in the carbon market.

34. This will enable Malaysia to collaborate and potentially link its market mechanisms with others, creating valuable opportunities for international trading.

35. The NRCC shall be maintained and managed for tracking and recording the issuance, trading and retirement of carbon credits and other emission reduction mechanisms.

# The Creation of a National Climate Fund [Part 6]

36. To address national climate finance gap in meeting Malaysia's NDC and long-term low emissions development strategies require a large pool of domestic and international investment from public and private sources to implement climate mitigation and adaptation measures. A fund to be known as the "National Climate Fund" is proposed to be established.

37. The proposed source of fund at this juncture would include but not limited to national budget allocation via NRES, administration and registration fee to participate in the carbon trading mechanism under this act, accreditation fees for carbon project related service providers, consultancy/advisory/training fees, international financing, philanthropy.

38. The proposed utilisation of the National Climate Fund is to support national climate change initiatives and operations of the Regulatory Entity. International financing and donations may be used to aid climate change initiative.

39. The Regulatory Entity would define eligibility criteria for disbursement of the fund which will be used to support climate change actions, low carbon resilient development, research funding, education, training and awareness programme related to climate change.

40. In addition, financing data gathered from the National Climate Fund on climate change initiatives could serve as one of the sources of information for the Biennial Transparency Report to UNFCCC in reporting financing received, needs and gaps for national climate finance planning. The financing data would also include information received from related parties on financial support received and needed for the implementation of Paris Agreement and transparency-related activities, including capacity-building and CEPA.

# <u>Reporting [Part 7]</u>

41. Malaysia's reporting obligations under the United Nations Framework Convention on Climate Change (UNFCCC) primarily include the submission of National Communications (NCs), as well as fulfilling requirements under the Enhanced Transparency Framework (ETF)

under the Paris Agreement which entails the preparation of a Biennial Transparency Report (BTR).

42. On a national level, the required data generally includes Malaysia's GHG emissions, climate change impacts, mitigation, and adaptation efforts. Accordingly, the RUUPIN, through the authority vested in the Minister, may establish annual reporting deadlines, methodologies, and standards for reporting. These standards must adhere to internationally recognized guidelines, such as those set forth by the Intergovernmental Panel on Climate Change (IPCC) or other equivalent frameworks, to ensure that relevant stakeholders are legally obligated to report in a timely, transparent, and consistent manner.

# 43. At sub-national level or state level, a clear mandate would be given to state authorities to provide data for the purposes of international reporting obligation.

44. At the facility level, the Minister, by virtue of the powers conferred, may mandate the reporting of GHG emissions in accordance with the GHG Protocol or other internationally recognised standards. The initial emphasis should be placed on hard-to-abate sectors or large emitters, with the introduction of a threshold to obligate organisations exceeding said threshold to comply with the requirements set under the ETS. The threshold introduced will be the basis for allocating allowances and is based on emission released from the sector or facility.

45. With respect to carbon projects, there must be a mandated requirement to collect and report data from these projects to facilitate the monitoring of NDC progress and to operationalize specific provisions of Article 6 of the Paris Agreement.

# Compliance and Enforcement [Part 8]

46. A compliance mechanism is needed to ensure that the objectives of RUUPIN are effectively met and maintained. By establishing clear rules, monitoring systems, and enforcement protocols and penalties, compliance ensures that individuals and entities act responsibly and within the regulatory and legal frameworks. Indirectly, compliance would drive adherence to standards for reducing greenhouse gas emissions and mitigating climate change.

47. Areas of compliance would include but not limited to mandatory reporting obligations for GHG emissions data at facility level across various sectors to ensure timeliness, accuracy, and reliability. Compliance with other mechanisms such as emission trading schemes would also entails timely surrender of allowances and other requiremens set under the ETS.

48. At this juncture, the Minister may appoint the Regulatory Entity tasked with encouraging and promoting compliance through the provision of incentives. Additionally, the Regulatory Entity shall have the authority to impose and enforce punitive measures,

including fines and imprisonment, to ensure adherence to the law. Furthermore, the Minister may appoint enforcement or investigative officers as deemed necessary under this Act, conferring upon them powers to investigate, compound and search, among other functions.

## **General provisions [Part 9]**

49. Part 9 includes the following key provisions, amongst others:

- (i) It is recommended that RUUPIN provides legal protection and immunity to designated enforcement units handling compliance matters, particularly those related to data and information disclosure, carbon trading, and actions taken to implement RUUPIN. This will ensure effective enforcement without unnecessary obstacles;
- (ii) The approval of the Public Prosecutor is required before initiating any legal proceedings for offences committed under RUUPIN;
- (iii) Punitive measures are recommended and enforced against individuals that commit offences under RUUPIN;
- (iv) The scope of liabilities for individuals, employees, and corporate entities committing offences under RUUPIN is defined; and
- (v) The minister is empowered to make regulations prescribing compoundable offences, penalties, fines, and other punitive measures.

# D. CONCLUSION

51. The Ministry is currently undergoing a crucial stage of stakeholder engagements with the aim to gather valuable inputs to understand the issues and challenges faced.

52. All comments and insights submitted during this consultation period, including those from the ongoing State engagement, industry player, NGOs, and other relevant stakeholders, will be carefully considered in refining and finalising the RUUPIN. It is imperative to note that the legislative details outline in Parts C and D are subject to further amendments based on the collected feedback.

53. Further engagements with stakeholders will be conducted where necessary before draft RUUPIN is finalised.

54. **Regulatory impact assessment (RIA)** will also be conducted in compliance with the procedures with the procedures set by Malaysia Productivity Corporation (MPC).

55. Following the comprehensive collection of feedback, the proposed RUUPIN will undergo a formal review by the Attorney General's Chambers (AGC) prior to presenting to the Parliament.

# E. APPENDIX A – TABLE OF COMMENTS

Please provide your comments and inputs (preferred form of submission) via the response form below and submitted to **rd.bpi@nres.gov.my** and copy (cc) to **MYFAProjectRUUPIN@deloitte.com**.

Response form may also be submitted by mail to:

#### Unit Rundingan dan Dasar

Bahagian Perubahan Iklim (BPI) Kementerian Sumber Asli dan Kelestarian Alam (NRES) Tingkat 5, Blok F11, Kompleks F Lebuh Perdana Timur, Presint 1 62000 Putrajaya, Malaysia

#### **Response Form**

Name:	
Designation:	
Organisation Name:	
General Comments	
Section A	
(Introduction)	
Section B	
(Principles and RUUPIN	
High Level Framework)	
Section C	
(Proposed RUUPIN)	
Others	