LOW CARBON CITY by AIM

On 9 Dec 2014 at Japan Pavillion COP20 Lima Peru

(Asia Pacific Integrated Model hosted by National Institute Environmental Studies)

Science into Action – Realizing Low carbon society The case of Iskandar Malaysia





Ho Chin Siong (UTM)

Faculty of Built environment/ UTM Low Carbon Asia Centre



















Project for Development of Low Carbon Society Scenarios for Asian Regions

Email: ho@utm.mv/csho59@yahoo.com

Content- Structure of Presentation

Backgroun d

- Background Low Carbon city design issues and challenges
- Urban problem and low carbon solution policy in Asia

LČS

actions

- Low Carbon City design for Iskandar Malaysia
- Solution- 12 actions
- Updates SE4ALL, RCE status

Chan, nges

And

Solution

- Key Lessons learned
- Key success factors (KSF)
- Challenges' and opportunities for Municipalities

ISSUES AND CHALLENGES



Rapid urbanization and industrialization



Relatively high carbon intensity dependence on fossil fuel (fuel subsidy)



High Private car ownership



Low density development and urban sprawl



Low efficiency appliances and low usage of renewable energy.

Key Success Factors (KSF) of green cities in Malaysia

National Policy and Co benefit

National Policy

• National Agenda 40% CO₂ intensity reduction

Green as New Consumer Culture, New Market
 New Growth with Green Credentials Economics
 Environment = Green Economy.

 Climate change and sustainability policy issues are embedded in all spatial planning policies (NPP/ RS/LP)

Co benefits

- Fulfill roles to reduce vulnerability on disasters (flood) and promote comfort and safety.
- Money-saving -Energy conservation and renewable energy
- Improvement Health and quality of environment

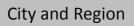


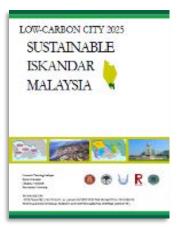
3 Establishing Low Carbon Society Scenario in Malaysia

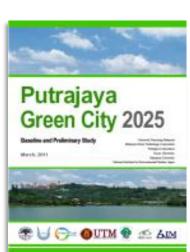
- Regional Cooperation with Japan - NIES and IGES

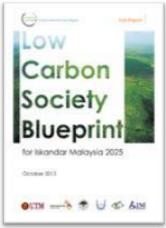


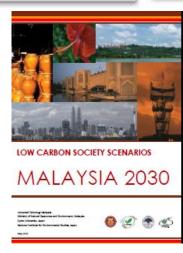






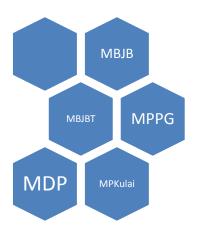












The Case of Iskandar Malaysia

"Strong and Sustainable Metropolis of International Standing"

ISKANDAR MALAYSIA

Iskandar Malaysia is Malaysia's economic growth corridor covering a total area of 2,317 sq km (12% of Johor State)

REGION

Iskandar Malaysia in the context of Regional Corridors Iskandar Malaysia Kangar **3** times larger Kota NORTHERN Bahru CORRIDOR Iskandar Malaysia **ECONOMIC** Penang REGION Kuala **1.3** times larger **EASTERN Terengganu CORRIDOR ECONOMIC REGION** Iskandar Malaysia Kuantan GREATER 11 times smaller KUALA LUMPUR Mersing Iskandar Malaysia ISKANDAR A **30** times smaller Johor Bahru Singapore

Iskandar Malaysia covers **FIVE** local planning authorities.



	2005	2010	2025
Population (million)	1.35	1.61	3.00
Labour Force (million)	0.61	0.70	1.43
Employment (million)	0.62	0.72	1.46

Source: CDP 2006 – 2025, Population Census 2010 and consultant estimates

01 Low Carbon Society Scenarios for Iskandar Malaysia

Project Background



Site: Iskandar Malaysia



FLAGSHIP B

- NUSAJAYA • Kota Iskandar
- + EduCity
- Medical Park
 International Destination Resort
- Southern Industrial & Logistics Clusters (SiLC)
- · Puteri Harbour

FLAGSHIP C

- WESTERN GATE DEVELOPMENT
 Port of Tanjung Pelepas (PTP)
- Tanjung Bin Power Plant
- 2nd Link Access to Singapore
- RAMSAR World Heritage Park
 Tanjung Piai Southernmost Tip of
- Mainland Asia
 Maritime Centre

FLAGSHIP D

- EASTERN GATE DEVELOPMENT

 Tanjung Langsat Industrial Complex
- + Johar Part
- Tanjung Langsat Port.
- Pasir Gudang Industrial Park

FLAGSHIP E

- SENAI-SKUDAI

 Senai Airport City
- + Senai High-Tech Park
- Sedenak Industrial Park
 MSC Cyberport City
- Johor Technology Park
 University Technology
- University Technology
 Malaysia (UTM)

(Iskandar Regional Development Authority)

Objective:

- i. To draw up **key policies and strategies** in guiding the development of Iskandar Malaysia in **mitigating carbon emission**. *Transforming Iskandar Malaysia into a sustainable low carbon metropolis by adopting green growth strategies/roadmap*.
- ii. To respond to the nation's aspiration for **ensuring climate-resilient development for sustainability**.

Target Year: 2025 (2005 – 2025)

Iskandar Malaysia at a Glance







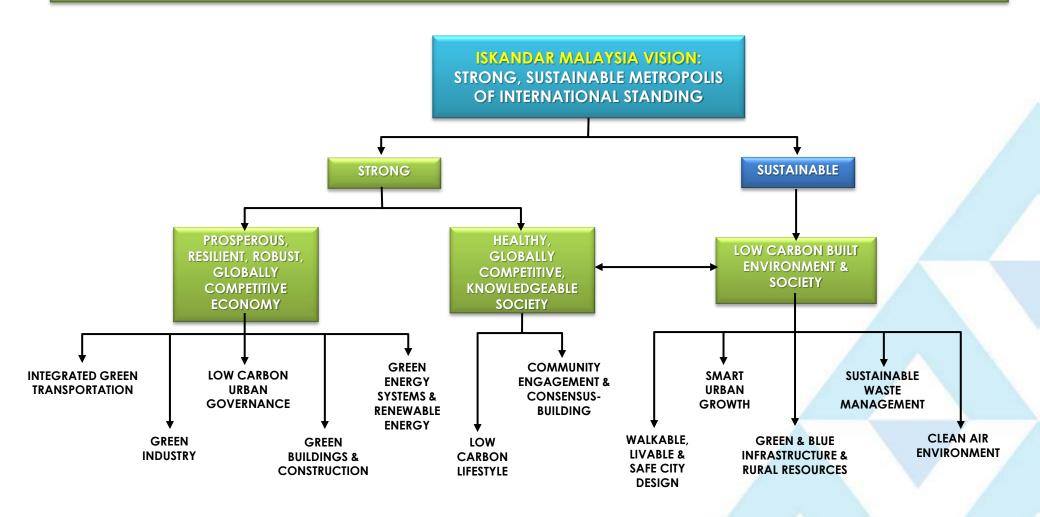




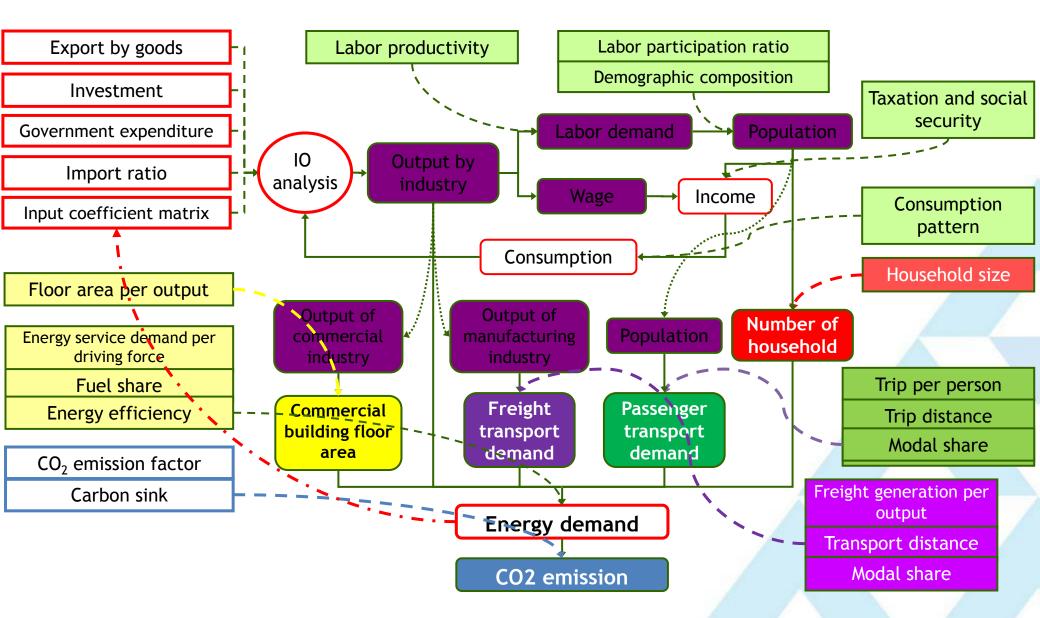


Green-focused Agenda - Rationale

Aligning the Vision with Low Carbon Society Development



LCS scenario study using ExSS



Projected Greenhouse Gas Emission Reduction in Iskandar Malaysia

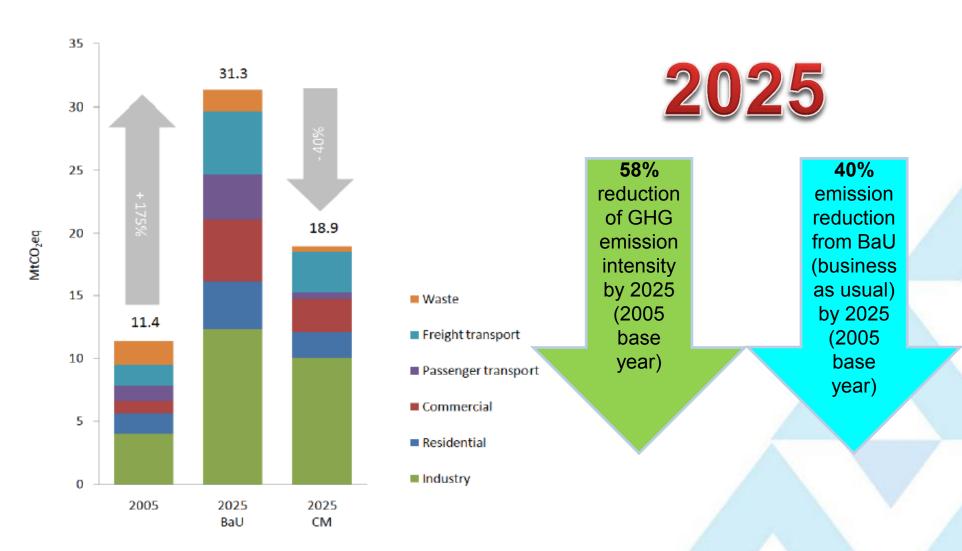
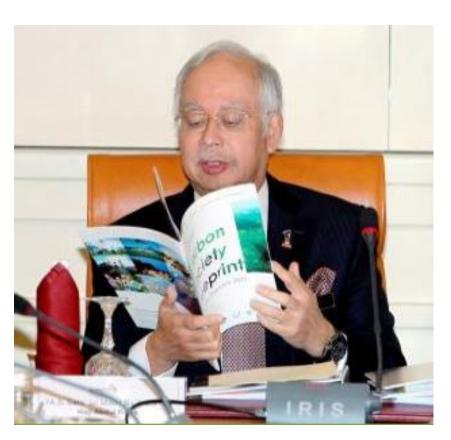


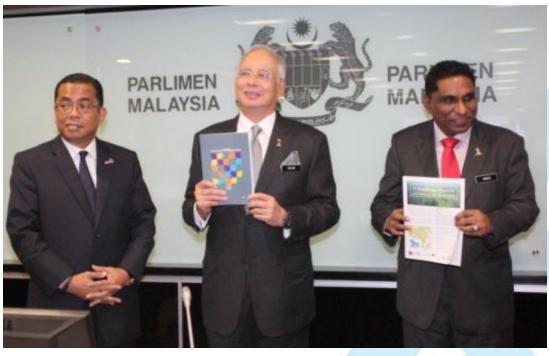
Figure 1: GHG emissions by sectors

Launching of the LCSBPIM - COP18 Doha, 2012 Launching of the LCS Road Map/ Action Plan COP19 Warsaw, 2013



Endorsed by Malaysia Prime Minister - YAB Dato' Sri Mohd Najib bin Tun Abdul Razak

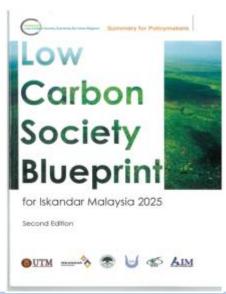




11th December 2012 The PM endorses the launching of LCSBPIM at COP 18 during MoA

6th November 2013
The PM launched Actions for a
Low Carbon Future during MoA

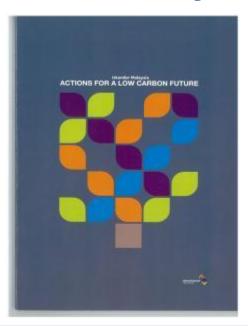
Low Carbon Society Blueprint for Iskandar Malaysia 2025



- The LCSBPIM— a quick reference for all policy-makers in both public and private sectors as well as IRDA;
- 12 Actions grouped in 3 parts namely: (Green Economy), (Green Community), and Green Environment);281 programmes;
- Each Chapter contains an analysis, list of programmes and the potential GHG emissions reduction;
- IRDA launched its Low Carbon Society Blueprint for Iskandar Malaysia 2025 on 30 November 2012 at the United Nations Climate Change Conference in Doha, Qatar. The ultimate goal is to reduce Iskandar Malaysia's carbon intensity emissions by 50 per cent by 2025.
- The Blueprint was subsequently endorsed by the Prime Minister of Malaysia in December 2012

	Action Names	Themes	
1	Integrated Green Transportation		
2	Green Industry		
3	Low Carbon Urban Governance	GREEN ECONOMY	
4	Green Buildings & Construction		
5	Green Energy System & Renewable Energy		
6	Low Carbon Lifestyle		
7	Community Engagement & Consensus Building	GREEN COMMUNITY	
8	Walkable, Safe, Livable City Design		
9	Smart Growth	CDEEN	
10	Green and Blue Infrastructure & Rural Resources	GREEN ENVIRONMENT	
11	Sustainable Waste Management		
12	Clean Air Environment		
	A W	16	

Iskandar Malaysia: Actions For A Low Carbon Future



- The Booklet 'Actions for a Low Carbon Future' – list of 10 programmes which IRDA has started implementing or have been completed.
- On 6th November 2013, the Iskandar Malaysia: Actions for A Low Carbon Future is the implementation booklet which outlines the 10 programmes, was launched by Malaysia Prime Minister Dato' Sri Mohd Najib Tun Abdul Razak.
- On 15th and 18th November 2013, was the subsequent global launching at COP 19, Warsaw, Poland.

	Programmes	PIC
1	Integrated Green Transportation – Mobility Management System	Kamisah Mohd Ghazali
2	Green Economy Guidelines	Ivy Wong Ling Ling
3	Eco-Life Challenge Project for Schools	Isma Ezwan Safri
4	Portal on Green Technology	Choo Hui Hong
5	Trees for Urban Parks/Forests	Boyd Dionysius Joeman
6	Responsible Tourism and Biodiversity Conservation	Boyd Dionysius Joeman
7	Bukit Batu Eco-Community	Hamdi Mohd Yusof
8	GAIA – Green Accord Initiative Award	Ivy Wong Ling Ling
9	Low Carbon Village FELDA Taib Andak	Dr Ibrahim Ngah (UTM)
10	Special Feature: Smart City – Nafas Baru Pasir Gudang: CLEAN AND HEALTHY CITY	Sakurah Jamaluddin , Sharifah Shahidah Syed Ahmad, Muhammad Fadly Muhammad Nor, Choo Hui Hong

03 Low Carbon Society Proposal Plans for 5 Municipalities

Iskandar Malaysia

FIVE (5) Local Municipalities

Integrating Iskandar Malaysia and 5 Local Municipalities

Top - down

Low Carbon Society Blueprint for Iskandar Malaysia 2025

OUTM ---- & S IM

Bottom - up

Low Carbon Society Action Plan for Johor Bahru 2025

Low Carbon Society Action Plan for Johor Bahru Tengah 2025

Low Carbon Society Action Plan for Pasir Gudang 2025

Low Carbon Society Action Plan for Kulai Jaya 2025

Low Carbon Society Action Plan for Pontian 2025



- Priority and Preference
- Correct Data through Survey
- Chose Implementable measures on the ground
- Pioneering Activities through Pilot **Projects**















Di

03 Low Carbon Society Proposal Plans for 5 Municipalities

Local Action Plan: Cover and Theme (Example)

























Johor Bahru Tengah

















Pontian

Johor Bahru

'The Vibrant Heart of Livable Community Southern Region' City'



Pasir Gudang

'Green Manufacturing Hub'

Kulai Jaya

'Smart Logistic Hub'

'Agrobiodiversity Hub'

Media Highlights 2012-2013 (LCS AND IM)



日マ共同研究で施策12件発表 イスカンダルの低炭素化を支援

Metro

Low carbon society









NEWSTRAITSTIMES

LATEST NEWS

investment drawing power "

All parties in Iskandar Malaysia have roles to play in transforming the economigrowth corridor as a sustainable living place for the well-being of the society. » among investors of Seance/Malayers as an investment

Najib confident of Iskandar M'sla's

the nexty is entered takendar Mataysia Line Carton Society (LCS) Sheprint has the polarital to attract more interest

Balanced approach

Cooperate to transform iskandar Malaysia for sustainable living

マレーシアに「日本式」環境都市ーCOC賞で協力ーCOP16

place

REPRESENTATION OF THE A RESIDENCE PROCESS OF THE PROPERTY OF T

を取りますが、ペーシアをおかりの表現を発展していた。ダルーツージア、自然では1年の表現をより発展にあり、11年の日本の表現を表現します。 THE THE PROPERTY OF THE PROPER

SECURITION OF THE PERSONS ASSESSED. AND RESIDENCE AND ADDRESS OF THE PARTY OF TH BOT PRESIDENCE OF PRODUCTION AND A SECURITION OF THE PROPERTY AND



From Wingay Street Libert

The plant shall also black them belon to doing all man in principle to processed with a best of the part of

The absorbed is a second of a given orbit functional labors and flustrate, when section in days \$100.



Ismail says Iskandar corridor moving in right direction but more work



ICHA, As the country's that expenses growth committee believing and written to severally past to experience and experience control for the phase to the althoughter and removed

think formed directors and the below's contentation counted the account CODE And the size is extensive the same stress array second for the CODE CODE demonstrated beings produced.

The last six years have to option generalized that a strong could be proved and " moved easily as the beautiful than become become the Carties Stoney (LCS), Margaret at the UN Climate Crumps. Englishman Colorest CMPE on Project

The LCS project, when also be to July need page to a print affect Demake at Conjunities Spring & Hostor researchers have the Conserve Convents and Librarian Tenning Managers

ter the Ferrinal and come governments, the private sector and the community, intensity Managora would not be insuring in the right Prentice as cultimat is to Comprehensive Development from CCCC.

not have all serve also and less are have proven than

Cooperate to transform Iskandar Malaysia for guistinable fiving





Annual & State of State of

PM Najib: Iskandar Malaysia has exceeded expectations

MRSST-ANDTONIBROW, NOT-1-11



the boothers sometic development and From Internal Calcol San High Ten-

He said liderated theretake registered strong perturbation in the lost 41

rearries of the year, sections \$5600 back to convenient invantually profiguriting the purious's sometimental Sometiment value to make filteratural

High not the way regar, the tribe occupate sures of sources. extraorder pays rainst property by the arms, built an improve that on the Educity development which saws the setting up of encest universities in the series and rated horse such as Mexico Cristopie fluted blair and Gallerie St. Corp. Prace.

(FRDI) - which oversees development in beginner Maleyers - for entering the Law Derboy Scoon, Huggins had not make an at the 100 Conference of the Pather (COPHS) in Color last recent.

and would carrying upon the Interest and absolute for more transference 1900 Whitesele." MAD sold to a elektronic Tuesday after a member with

that

works!

- UPSR



Statt Phile Services Fermangane Wheek between (MCK, Busine beine

bearing married in property barrier (1982)

Media Highlights 2013-2014 (LCS AND IM)

The sale of Classe Fools Malayora distrate governointy a basedism shally report, introducing but nations









1,000 trees planted in Iskandar

GO GREEN: Residents of Sungo: Buildh Recreational Park plant tree applies to reduce the carbon footprints

PASK OLDANO. It as affect to reduce the carties forgoints in briseder Malaysia, the residency of Sungar Sulah Recreational Park

NewStraitsTimes 'Services, logistics investments rising'

tame to restaurance.

Takandar has been emprying a healthy growth of between several several sight per cent on a year-to-year tests, for achiev.

"For 2014, we expect existing near-

BULLISH MOOD: Iskandar has been enjoying 7pc-8pc annual growth, says Irda head

This year's total tryestoness to date has surpassed the initial target of RAER believe. resent Auchority (Infat in Ar-her is witnessing growing in-estrectes in the services and br-

Its chief executive Delais lisuals foreshin said be expects the rest sec-tors to contribute the store investto continue to giver and new other coming to. We are facility about it and we expect committed invest-poors of around BMES failton, to certs in the bilitary har regions.

Spreadingers, in the librarius reright look, we are unding growing precess in the services and is otics sectors," for said at a results selling on the inhunder Moleysia Autolity Management System (MANIME), here, omegries.

mores of EMCIR-14 billion from Mr. Of that account, 66 per cost were countbused by Social Inventors.

Managementalis, DARMANS in a proping

that uses inclinately to promote a remainable transportative system and manager the demand of car use

Such that is our controlled stretched target," local said.

Standar Maloysia has recorded

fedia to also be the motion of econe operations and supply chain min

Iskandar Malaysia akan lancar sistem pengurusan mobiliti

RUALA LUMPUR: Pilot Bertuss. Judeo di bisade Morpis. Wilesak Prestengation Schooler state memperhesaften sieten pengurunn peramentus irpu, tan furus (butu-Show Danik Sonal Rephin.

Selice Serbots stonen berkeman yang. akus sergelete makkasat, perklidissiicherhennan progonginose bondas, whith porring nexus mongabab gays. hidup das pritikinus praduckik ire urak-

larios," haven puls talliner medic pints," haven morgana: proframas insurié rendats

bried berketveleren in ekse menyebeb fregulment producted monagementum pringaughtens reserver, manys had seeing. tra, producid freprintipana resoluti dan

Songette by hand before their jap yang mendis yang hurang speys. In akan menunjakhan kesilan spelik musa sebenar, peta hikus dan menderi ter dan skriviti samik sungapyskrundan. . . unlangan satuk surahana pengrahan mentions keontrops memorial kaolah between sorok peralmon, beaups.

"Sierne its sinn mercked pelepann puls 2015. annian behidepen yang lebih menun barben mebilih indiratu, baguanan losan pilitan perjakana meraberi besas priepina inches das juga summerkos kin, dagar Pritangar ngha pikpuan makunut mengensi derinasi berlam-

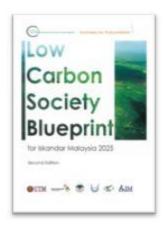
djungko siap pada pertengulum 2014, statulida penggampahalat pari yanchas

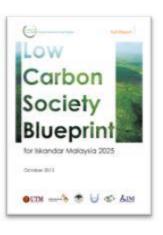
e brogaine preisbasse. Ai mata progres

Garle pandros berlussos melhatina hiding procieties, operari, restains per dem sals unit nogrengiae broan terlacky shar sektrar, buts belies.



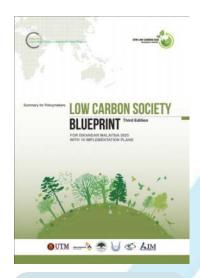
Low Carbon Society for Iskandar Malaysia Publications











Low Carbon Society Blueprint for Iskandar Malaysia 2025- Summary for Policymakers

> http://irdep.irda.co m.my/cms/downlo ad/documentShari ng/18230

Low Carbon Society Blueprint for Iskandar Malaysia 2025- Full Report

http://irdep.irda.co m.my/cms/downlo ad/documentShari ng/26570 A Roadmap towards Low Carbon Iskandar Maaysia 2025

> http://irdep.irda.co m.my/cms/downlo ad/documentShari ng/26563

Iskandar Malaysia: Action for a Low Carbon Future

http://irdep.irda.co m.my/cms/downlo ad/documentShari ng/26571 Low Carbon Society Blueprint and 10 implementation Plan

http://irdep.irda.co m.my/cms/downlo ad/documentShari ng/26564

Concluding Remarks

KSF

- S2A Modeling/ Baseline study
- Multidisciplinary work Planners/ Engineers/ Environmentalist
- FGD Stakeholders
- Media/ Marketing
- Network LoCARNet

New updates

- RCE status
- SE4 all
- Detail Plan for 5 Local authorities- Implementation projects





Thank You Terima Kasih 谢谢 धन्यवाद ありがとう

