

PROJECT MANAGEMENT FOR PROJECT MANAGERS

Lesson 8: Project RISK Management

Contents

- ☑ **8.1 : Introduction**
- ☑ **8.2 : JKR Risk Management Policy**
- ☑ **8.3 : Risk Management in Project Life Cycle (JKR)**
- ☑ **8.4 : Project Risk Management Process in JKR**
- 8.5 : Roles and Responsibility**
- ☑ **8.6 : Risk Management Document**
- ☑ **8.7 : Exercise**
- ☑ **8.8 : Summary**

8.1: Introduction

Risk Management is a major managerial tools.

- Many organization who concerned with standardization have adopted risk management as a key process in their work.
- It can be used as a planning tool that provides information in advance about what and when event that can caused damage to the project outcomes
- It is a core discipline that assists managers at all levels to make correct and informed decisions and provide a process for organized assessment and control of risks.

8.1.1: Objective Project Risk Management

- ✓ To ensure levels of risk and uncertainty are effectively managed to increase the probability of project success.



8.1.2: Definition



What is Risk?

- Risk is effect of uncertainty on objective



What is Risk Management?

- Risk Management is coordinated activities to direct and control organisation with regard to risk

(source : ISO 31000:2009 Risk Management – Principles and Guidelines)



What is Project Risk Management?

- Project Risk Management includes the processes of conducting risk management planning, identification, analysis, response planning and controlling risk in a project

(source : PMBOK 5th edition)

8.1.3: Benefits of Project Risk Management

- Improve predictability and maximum potential to meet deadlines
- Prevent additional cost and potential for budget overrun due to unforeseen and planned for events
- Achieve higher quality by increased conformance to define requirements
- Achieve better stakeholder satisfaction by avoiding damaging events of direct interest to them
- Identify the requirement to prepare contingency plan where necessary
- Ability for earlier problem resolution. Early detection make risks less expensive to manage

8.2: JKR Risk Management Policy



JABATAN KERJA RAYA MALAYSIA

PEJABAT KETUA PENGARAH KERJA RAYA
IBU PEJABAT JKR MALAYSIA,
JALAN SULTAN SALAHUDDIN,
50582 KUALA LUMPUR.

Telefon : (03) 2691 9011
Telefax : KRT MA 30415
Kawat : MINWORK, KUALA LUMPUR
Fax : (03) 2694 8477 (Tkt. 2)
: (03) 2692 1202 (Tkt. 4)
Laman Web : <http://www.jkr.gov.my>



No. Rujukan : JKR.KPKR.113.020.050/03 Jld.2 (26)
Tarikh : 18 April 2012

Semua Pengarah Kanan / Pengarah Cawangan Ibu Pejabat JKR
Semua Pengarah Kerja Raya Negeri
Semua Pengarah Kerja Raya Wilayah Persekutuan
Semua Pengarah/Pengurus Pembinaan
Pengarah JKR Unit Khas KESEDAR
Semua Jurutera Daerah

SURAT ARAHAN KPKR BIL. 10/2012

PELAKSANAAN PENGURUSAN RISIKO UNTUK PROJEK PEMBANGUNAN DI BAWAH TANGGUNGJAWAB JKR

1. TUJUAN

- 1.1 Surat Arahan ini bertujuan untuk memaklumkan mengenai pelaksanaan pengurusan risiko bagi projek-projek pembangunan yang dilaksanakan oleh JKR.

2. LATAR BELAKANG

- 2.1 Pengurusan risiko adalah salah satu bidang pengurusan projek yang dipraktikkan oleh kebanyakan organisasi dalam proses kerja bagi meningkatkan kadar kejayaan serta mengurangkan kesan daripada peristiwa risiko dalam operasi sesuatu organisasi.
- 2.2 Pengurusan risiko projek adalah bertujuan memastikan risiko utama diuruskan dengan berkesan oleh pengurus projek serta ahli pasukan projek dengan mengambil tindakan secara proaktif terhadap faktor-faktor risiko yang boleh memberi kesan negatif terhadap pencapaian objektif projek.



.....JKR Risk Management Policy (Cont.)

- 2.3 Oleh itu wajarlah semua pengurus projek JKR mengamalkan pengurusan risiko dalam projek pembangunan sebagai usaha meningkatkan penyampaian projek.

3. PELAKSANAAN SISTEM PENGURUSAN RISIKO

- 3.1 Pengurusan risiko merupakan salah satu fungsi pengurusan projek yang seharusnya menjadi sebahagian daripada Sistem Pengurusan Bersepadu JKR. Sebagai langkah permulaan, pelaksanaan pengurusan risiko dalam projek diberi keutamaan terhadap projek-projek berskala besar.
- 3.2 Sebagai permulaan, pelaksanaan pengurusan risiko adalah DIWAJIBKAN ke atas semua projek di mana kosnya melebihi RM50 juta. Meskipun begitu, pelaksanaan pengurusan risiko adalah DIGALAKKAN bagi semua projek, tanpa mengambilkira kos projek.

4. TATACARA PELAKSANAAN PENGURUSAN RISIKO

- 4.1 Pengurusan risiko adalah dilaksanakan berdasarkan kepada proses dan prosedur jabatan sedia ada.
- 4.2 Sekiranya terdapat sebarang pertanyaan lanjut, sila hubungi pegawai berikut ;

Pengarah Kanan
Cawangan Pengurusan Projek Kompleks
Ibu Pejabat JKR Malaysia,
Tingkat 28, Menara PJD,
No. 50, Jalan Tun Razak,
50400 Kuala Lumpur.
(U.P. Unit Pengurusan Risiko)

Tel : 03- 2618 7601 / 03-2618 7621
Faks : 03- 4041 1940

5. KAWALAN DAN EDARAN DOKUMEN

- 5.1 Semua dokumen pengurusan risiko boleh diakses melalui <http://rakan.jkr.gov.my/prokom>. S perubahan kepada dokumen ini akan dikem berkenaan.

6. TARIKH KUAT KUASA

- 6.1 Arahannya ini berkuatkuasa serta merta.

7. PEMAKAIAN

- 7.1 Sebarang pengecualian kepada pemakaian keseluruhan atau sebahagiannya, hendaklah r Pengarah Kerja Raya (KPKR) atau Wakil Pengu

Sekian, terima kasih.

"BERKHIDMAT UNTUK NEGARA"

Saya yang menurut perintah,



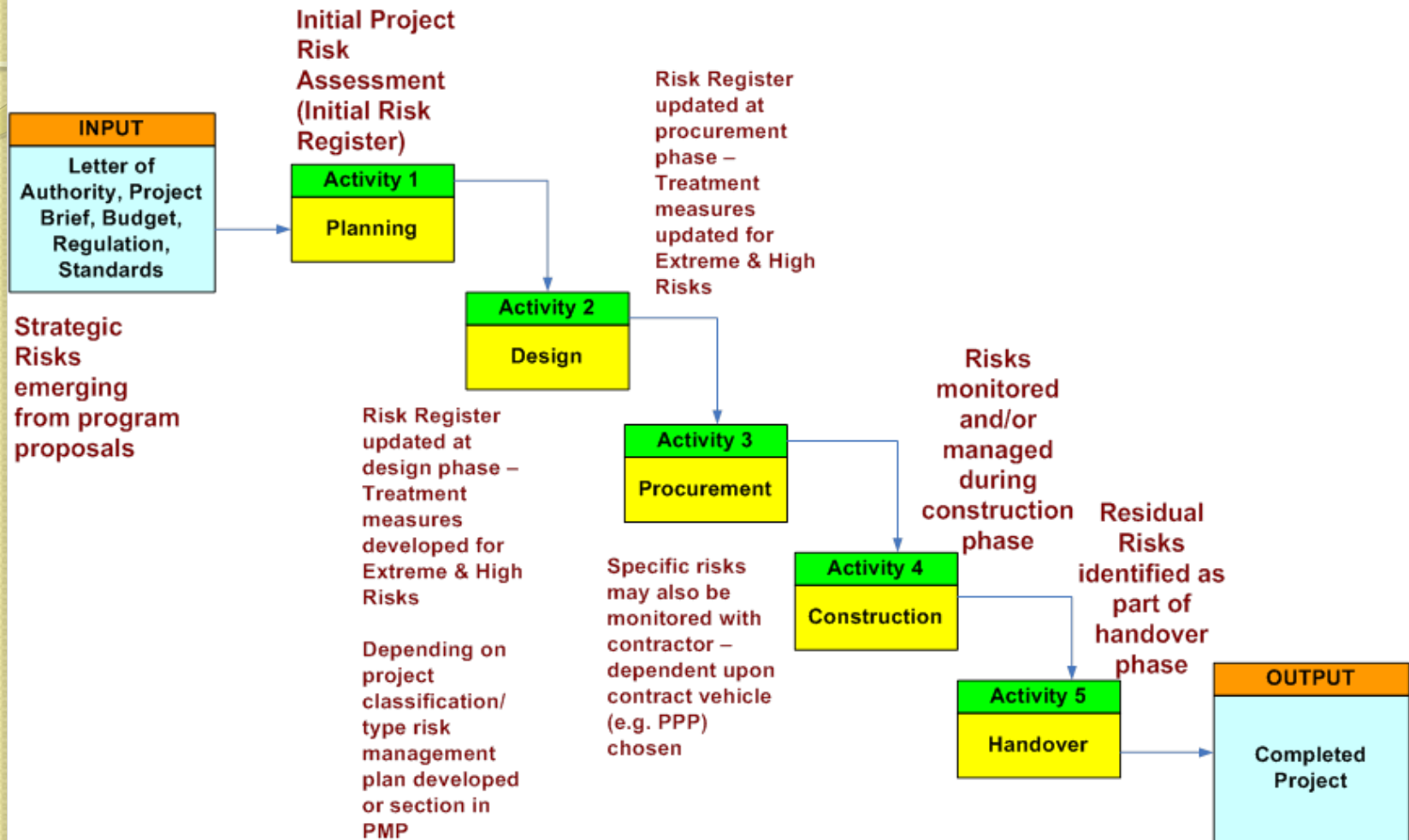
(DATO' Ir. H.J. MOHD NOOR BIN YAACOB)

Ketua Pengarah Kerja Raya Malaysia
Ibu Pejabat JKR Malaysia
Kuala Lumpur

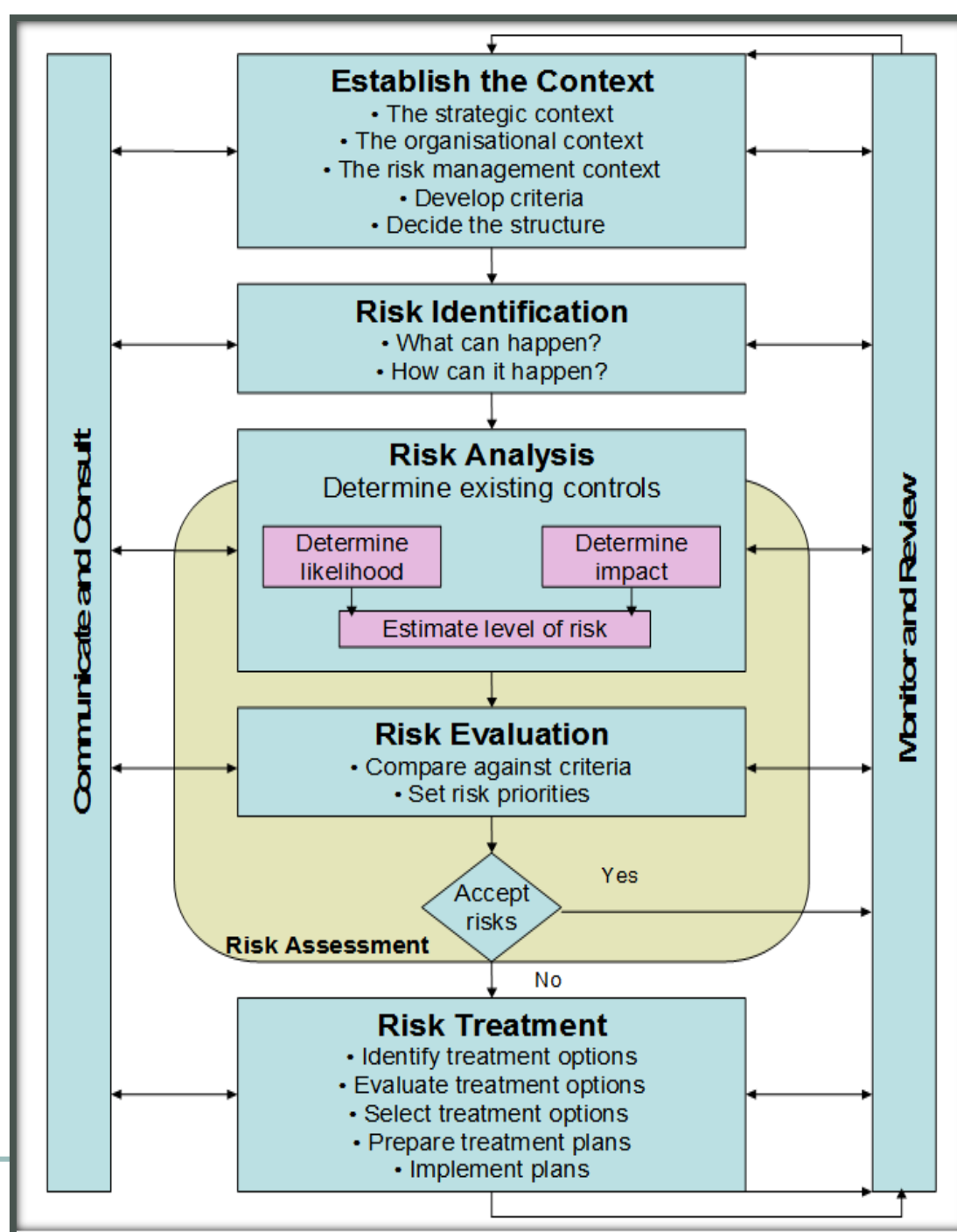
Salinan kepada :

- Timbalan Ketua Pengarah Kerja Raya (Sektor P
- Timbalan Ketua Pengarah Kerja Raya (Sektor B
- Timbalan Ketua Pengarah Kerja Raya (Sektor P
- Pengarah Kanan Cawangan Pengurusan Projek
- Ketua Bahagian Kualiti Cawangan Pengurusan

8.3: Risk Management Project Life Cycle (JKR)



8.4: Project Risk Management Process (JKR)



.....Project Risk Management Process In JKR (Cont.)

- Establishing The Context
- Risk Identification
- Risk Analysis
- Risk Evaluation
- Risk Treatment
- Monitoring & Review
- Communicate & Consult

8.4.1: Establishing The Context

- ✦ To determine the environment in which the risk will be managed.
- ✦ To prepare the procedures needed to manage risks and the structure for escalation of project risks to Senior Management.



8.4.2: Risk Identification

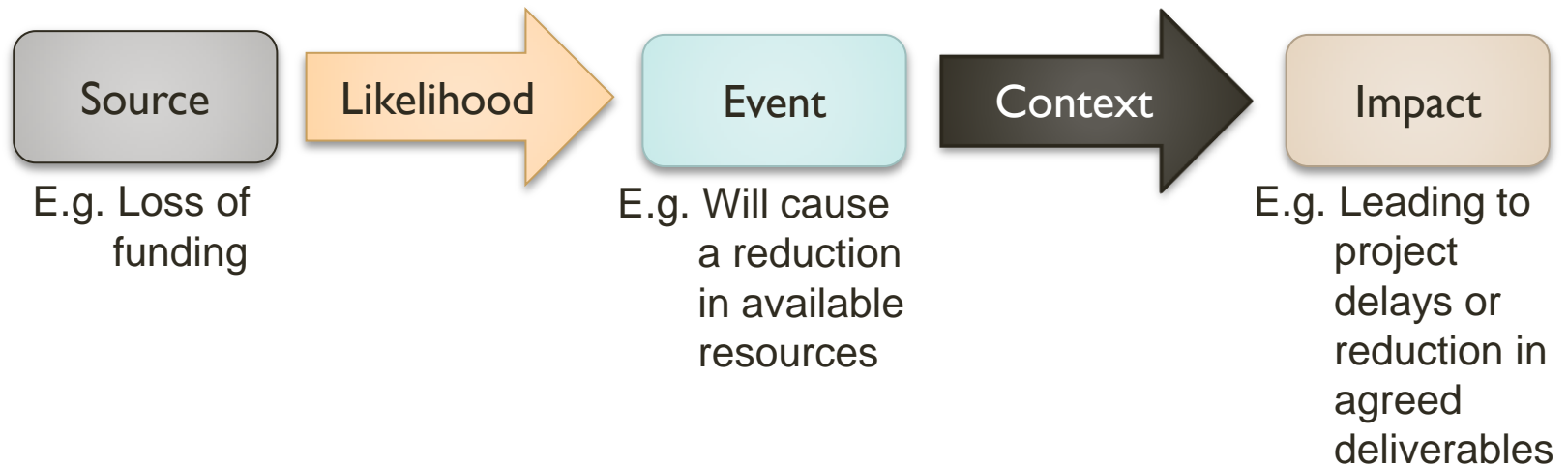
- Identify the various risks and categorise them according to a suitable and controllable structure. The result of this is a list of risky events or conditions grouped under a suitable classification.

Categories of Project Risks

1. Political Schedule	2. Scope	3. Schedule
4. Financial	5. Human Resource	6. Quality
7. Communications	8. Other Resources	9. Contractual
10. Technical	11. Environmental	12. Supplier
13. Industrial Relations	15. OH&S	14. Organizational
16. Cultural & Social	17. Integrity	

.....Risk Identification (Cont.)

- ✚ For description, risks need to be given a structured description using the following so that it is fully understood.



8.4.3: Risk Analysis

- ✚ The risks are analysed according to the likelihood and the impact they have to the project objectives.
- ✚ Analyses all events by assessing each against two major parameters, the likelihood that an event might take place and the impact of the event. Results in risk rating using risk matrix.

Likelihood is classified as

1. Rare
2. Unlikely
3. Possible
4. Likely
5. Almost Certain

Impact is classified as

- i. Insignificant
- ii. Minor
- iii. Moderate
- iv. Major
- v. Severe

.....Risk Analysis (Cont.)

- The rating of risks are then conferred for the type of treatment measures to be taken

Risk Matrix for Rating Risk

LIKELIHOOD		IMPACT				
		Insignificant I	Minor II	Moderate III	Major IV	Severe V
Almost Certain	5	H	H	H	E	E
Likely	4	M	M	H	E	E
Possible	3	L	M	M	H	E
Unlikely	2	L	L	M	H	H
Rare	1	L	L	M	M	H

Tolerances:

- Preferred
- Acceptable
- Undesirable
- Unacceptable

LOW Risk (L)

MEDIUM Risk (M)

HIGH Risk (H)

EXTREME Risk (E)

How to use the Risk Matrix

LIKELIHOOD		IMPACT				
		Insignificant I	Minor II	Moderate III	Major IV	Severe V
Almost Certain	5	H	H	H	E	E
Likely	4	M	M	H	E	E
Possible	3	L	M	M	H	E
Unlikely	2	L	L	M	H	H
Rare	1	L	L	M	M	H

Tolerances:

- Preferred
- Acceptable
- Undesirable
- Unacceptable

Risk Levels:

- LOW Risk (L)
- MEDIUM Risk (M)
- HIGH Risk (H)
- EXTREME Risk (E)

Say, for Risk A,

Likelihood = unlikely, Impact = major, then Risk = High

.....Risk Analysis (Cont.)

- ✚ Some typical risk treatment measures in JKR projects are as follows :

Recommended Treatment Measures

Ratings	Risk Treatment Measures	Who
E Extreme	Treatment measures, to reduce the likelihood and impact, to be identified, costed and prioritised for implementation before the project commences or immediately as they arise during project execution.	Steering Committee/ Project Sponsor
H High	Treatment measures, to reduce the likelihood and impact, to be identified, costed and prioritised. Appropriate actions implemented during project execution	Steering Committee/ Project Manager
M Medium	Treatment measures, to reduce the likelihood and impact, to be identified and costed for possible action if funds permit	Project Manager
L Low	To be noted; no action is needed unless grading increases over time	Project Manager

8.4.4: Risk Evaluation

- ◆ Considering the best method of handling the risks – reduce, accept, avoid or transfer. Develop contingency plan if the impact is unacceptably high



8.4.5: Risk Treatment

- ✦ Identification, evaluation and selection of the appropriate treatment options, and the development and implementation of the required plans.



8.4.6: Monitoring & Review

- ✓ Presents the procedures needed to monitor and track risky events, revising the Risk Register and learning from the various results.



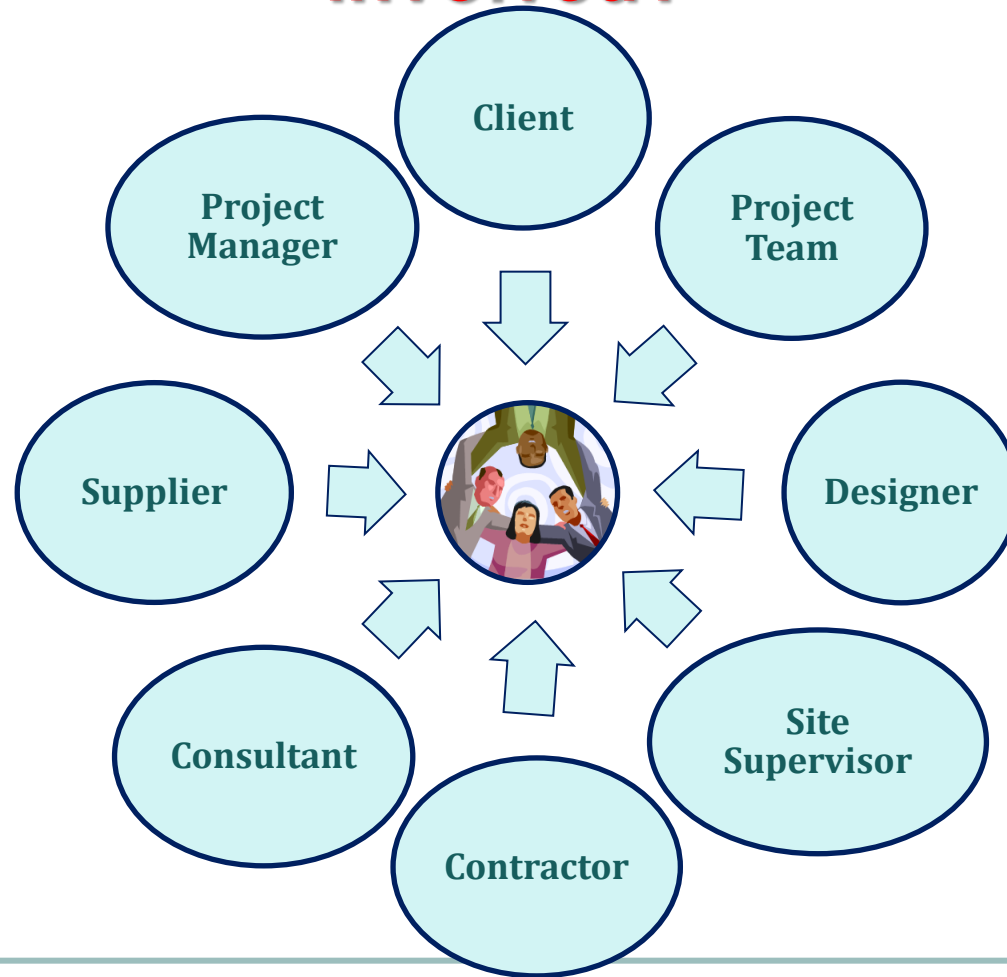
8.4.7: Communicate & Consult

- Stakeholders have significant impact on decisions pertaining to risks undertaken and should be continuously communicated over the risk process. Risk status must be reported to key stakeholders.



8.5 : Roles & Responsibilities

Who are the stakeholders involved?



8.5 : Roles & Responsibilities

- ✓ The key to effective risk management is **OWNERSHIP**.
- ✓ Each risk must be owned so that there is clear responsibility and accountability for that risk.
- ✓ People need to take responsibility for different risks at different level.

8.5.1: Roles & Responsibilities

Risk Manager

(e.g. Project Manager, assigned team member)

- Responsible for operating the project's risk management process
- Custodian of the Risk Management Plan and Risk Register
- Monitoring the treatment measures and evaluating the effectiveness
- Reporting to Project Manager and Program Manager

8.5.1: Roles & Responsibilities

Risk Owner

(e.g. clients, project managers, team members, consultants, contractors)

- ☐ One whoever is best placed to manage the specific risk.
- ☐ Agrees to own the risk.
- ☐ Be aware of the responsibility of managing the risk.
- ☐ Responsible for ensuring the quality of data recorded about the risk in relevant documents

8.6: Risk Management Documents

- RISK MANAGEMENT PLANNING
- RISK REGISTER
- RISK ANALYSIS TEMPLATE
- RISK MANAGEMENT PLAN
- RISK STATUS REPORT TEMPLATE
- RISK FINAL REPORT TEMPLATE

8.6.1: Risk Management Planning

- Project Information
- Risk Management Workshop
- Monitoring and Review
- Sign Off

Risk Management Planning – Project Information Template

Borang JKR.PR-TPR Ver 3.0 Okt 20

RISK MANAGEMENT PLANNING	
1.0 PROJECT INFORMATION	
PROJECT TITLE :	
PROJECT REF. NO. :	
SKALA REF. NO. :	
CLIENT MINISTRY :	
END USER :	
FUNDING :	FEDERAL / STATE / PFI / OTHERS
PROGRAM MANAGER:	
HEAD OF PROJECT TEAM :	
SITE SUPERVISION OFF :	
RISK MANAGER :	
PROJECT ENTRY DATE:	
PROJECT COMPLETION DATE:	
CONTRACT START DATE:	
CONTRACT END DATE:	
PROJECT CEILING COST:	
CONTRACT COST:	
TYPE OF CONTRACT:	CONVENTIONAL-JKR / CONVENTIONAL-CONSULTANT / DESIGN & BUILD / OPEN TENDER / RESTRICTED TENDER / DIRECT NEGOTIATION
CONTRACTOR'S NAME:	
ADDRESS:	
CONSULTANT'S NAME	
ADDRESS :	
Need for Workshop?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Risk Management Planning – Risk Management Workshop Template

Borang JKR.PR-TPR Ver 3.0 Okt 2013

2.0 RISK MANAGEMENT WORKSHOP			
DATE OF WORKSHOP:			
LOCATION :			
PARTICIPATING ORGANISATIONS :	1.		
	2.		
	3.		
	4.		
	5.		
	6.		
	7.		
	8.		
	9.		
	10.		
NO. OF PARTICIPANTS :			
NO. OF PRESENTER/FACILITATORS :	Presenter:	Facilitator :	
ESTIMATED COST :	RM		
<i>Use To Budget Template</i>			
SOURCE OF FINANCING :			
ITINERARY TYPE :	A / B / Other		
PROJECT PHASES :	INITIATION / PLANNING / DESIGN / PROCUREMENT / CONSTRUCTION / HANDOV		
CURRENT PROJECT ISSUES :	1.		
	2.		
	3.		
	4.		
	5.		
	6.		
	7.		
	8.		
WORK PLAN :	Q PLAN / WORK SCHEDULE /		
LIST OF APPARATUS & EQUIPMENT AND NOS REQUIRED :	1. LAPTOP COMPUTER		nos.
	2. LCD PROJECTOR		nos.
<i>Use To Workshop Checklist</i>	3. PROJECTOR SCREEN		nos.
	4. FLIPCHART		nos.
	5. PA SYSTEM		nos.
	6. WIRELESS MICROPHONE		nos.
	7. LASER POINTER		nos.
	8.		nos.
	9.		nos.
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Risk Management Planning – Monitoring & Review

3.0 MONITORING & CONTROL	
3.1 RISK MANAGEMENT PLAN	
DATE OF INITIAL RISK REVIEW MEETING:	
DATE TO APPROVE RMP :	
DATE TO DISTRIBUTE RISK REGISTER :	
3.2 MONITORING & FEEDBACK	
	1. PROJECT SITE MEETINGS
	2. FOLLOW UP RISK REVIEW MEETINGS
	3. TECHNICAL MEETINGS
	4. E-MAIL
	5. OTHERS
	<i>Mark ✓ on the appropriate method</i>
3.3 REPORTING	
FREQUENCY OF STATUS REPORT :	MONTHLY / BI MONTHLY / QUARTERLY
DATE TO COMPLETE FINAL REPORT :	
REPORTING OFFICER :	
VERIFYING OFFICER :	
4.0 SIGN OFF	
Prepared by Project Manager :	
Approved by Program Manager / Director :	
Date :	

Example: Risk Register

Project Title : <u>Universiti Pertahanan Nasional Malaysia</u> UPNM, <u>Sg. Besi</u> , Kuala Lumpur	Date : 16 February 2008
Project Ref. No. : JKR(P) CPPK.101.221	Compiled by : Maslinda Mohamad
Project Manager : Mas Abdul Rahman bin Mas Mohamad	Reviewed by :

CATEGORY OF PROJECT RISK		Likelihood Rating	Impact Rating	Risk Rating	Risk Matrix						
1. Political	9. Contractual	5. Almost certain	V. Severe	E- Extreme risk, immediate action required	LIKELIHOOD	5	H	H	H	E	E
2. Scope	10. Technical	4. Likely	IV. Major	H - High risk, will jeopardize project if not managed		4	M	M	H	E	E
3. Schedule	11. Environmental	3. Possible	III. Moderate	M - Medium risk, will impact time, cost or quality if not managed		3	L	M	M	H	E
4. Financial	12. Suppliers	2. Unlikely	II. Minor	L - Low risk, acceptable project management risk, monitor only		2	L	L	M	H	H
5. Human Resources	13. Industrial relations	1. Rare	I. Insignificant			1	L	L	M	M	H
6. Quality	14. Organisational						I	II	III	IV	V
7. Communications	15. OH & Safety										
8. Other resources	16. Cultural & Social										

Ref No. (WBS)	Risk Event	Category of Risk	Likelihood Rating	Impact Rating	Risk Rating	Treatment Measures	Responsible Party	Action Date
1.0	PLANNING RISK							
1.1	Lack of understanding of the scope by the project team will lead to project deliverables not meeting the satisfaction of clients	2	4	V	E	<ul style="list-style-type: none"> o Clients project brief to be submitted to JKR together with Schedule of Accommodation o Define roles and responsibilities of PROKOM and UPNM - Understanding of R&R of UPNM and PROKOM was discussed in progress meetings but not documented. o Have scheduled status report meetings with the clients which must include at least one of the clients key personnel o Official Letter of Appointment to JKR as the project implementer 	UPNM PROKOM PM UPNM	13/02/08 14/03/08 2 nd Tues of the month or (Rev. every other Thursday) 22/02/08
1.2	Delay in confirmation of site location would cause Need Statement cannot be finalised and will lead to delay in calling of tender		5	V	E	<ul style="list-style-type: none"> o written confirmation on the site for development to be sent to client o Written confirmation on existing buildings that can be demolished 	PM UPNM	25/02/08 25/02/08
2.0	PROCUREMENT PHASE							
2.1	Increase in cost of main materials will lead to increase of tender cost and may cause tender not awarded		4	V	E	<ul style="list-style-type: none"> o Obtain information on current material price index for realistic estimate - specified for in the contract o Advise client on estimated project cost o Client to apply to EPU for increase in ceiling cost / reduce in scope 	PM PM	20/03/08 18/02/08

Example: Risk Analysis

Ref No (WBS): 2.1	Risk Title: There is risk in delaying project approval due to the change of building height to the conformance HIA/UNESCO requirement thus delaying the project completion.
-------------------	---

Risk Description: There is risk in delaying project approval due to the change of building height to the conformance HIA/UNESCO requirement thus delaying the project completion.

Risk Nature:	Risk Category: 2	Risk Manager:	Business Unit: CPUM
--------------	------------------	---------------	---------------------

Risk Factors:	Possible Effects:
- 1) Approval from MBMBInadequate guidelines specified by Local Authority regarding the building heights in gazette heritage area.	- 1) Late approval of development order (DO) from Local AuthorityLate approval of building plan (BP) from Local Authority

Existing Risk Treatments:	Effectiveness: (High/Medium/Low)
- 1) Request for a special meeting to expedite the approval with MBMB.	- 1) Medium
- 2) The consultant has to inform all stakeholders about Local Authority requirement.	- 2) High
- 3) Request for early commencement for special projects in heritage area.	- 3) High

New Risk Treatments :	Responsible Party:	Target Deadline:
- 1) Consensus from Chief Minister Office	- 1) CM, MBMB, Contractor	- 1) 18-03-2011

Risk Assessment Date	Inherent Risk			Assessed Risk			Target Risk		
	Likelihood	Impact	Risk Rating	Likelihood	Impact	Risk Rating	Likelihood	Impact	Risk Rating
14-12-2010	5	V	E	3	III	M	3	II	M

8.6.2: Risk Management Plan

- The main document for managing risks
- Planning and implementing project risk management
- Custodian – Project Manager
- Risk Register – most dynamic, updated regularly

Example: Risk Management Plan



8.6.3: Risk Status Report

- Project Manager/Risk Manager to prepare regularly
- Purpose – to inform status of risks mitigated, new risks identified and lessons learned
- Submitted regularly to higher management
- Contributes to Final Risk Report

Example: Risk Status Report

RISK STATUS REPORT

Project Title : Kompleks Kerja Raya 2	Report No. : 4/2010
Project No. : JKR(CKBA)03.G09/W/002	Date of Report : 31-12-2010
Project Mgr : Ir. Roslina bt. Abdul Rahman	Prepared by : Mohd Nazira Mohd Nasir

• C- Completed O- On-going NS- Not Started

Ref No. (WBS)	Risk Event There is a risk that	Risk Category	Inherent Rating	Treatment Measures	Resp. Party	Deadline	Action Status C/O/NS	Current Rating	Remarks (Action Review/Lessons Learned/Others)
A CURRENT RISKS									
1.0	PLANNING RISKS								
1.4	There is a risk that late identification of building occupant will cause late finalization of ID works leading to late occupancy.	10	E	<ul style="list-style-type: none"> Write officially to the Client for confirmation Carry out discussions with the Client (KSU) 	HOPT		C		<ul style="list-style-type: none"> HOPT had issued letter to KKR regarding this matter. HOPT issued letter to KKR with alternative occupant on 8 Oct 2010 PD had instructed to proceed with users based on original brief to start design of ID works on 12 July 2010
1.5	Late confirmation of 33kV sub-station leading	2	E	<ul style="list-style-type: none"> Reconfirmation of overall electrical load to verify load 	HOPT	30 th April 201	C		<ul style="list-style-type: none"> Discussion was made with HODT CKE and TNB on 13 May 2010.

8.6.4: Final Risk Report

- Prepared at end of project (handover phase)
- Summary of Risk Management Plan, success rate of risk treatment actions, benefits, lessons learned
- Info gathered from Risk Status Report
- End of risk management for project

Example: Risk Final Report



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FINAL RISK MANAGEMENT REPORT

1.0 Project Information

a) Project Name	Cadangan Tambahan Universiti Pertahanan Nasional Malaysia di Kem Sungai Besi, Kuala Lumpur
b) Project Reference No.	PKR.CPPK.700.101/000
c) Client	Najib Canselor, Universiti Pertahanan Nasional Malaysia
d) Project Manager	En. Mas Abdul Rahman bin Mas Mohamed
e) Risk Manager (if any)	Cik Maslinda bt Mohamed
f) Branch / Unit	Cawangan Pengurusan Projek Kompleks, Malaysia
g) Project Start Date	October 2007
h) Project End Date	Planned : 26 Mar 2011 Actual : 26 Dec 2010 Variation : 3 months ahead
i) Project Initial Cost (RM):	RM76,389,600.00
j) Project Final Cost (RM):	Actual : RM 76,889,600 million Variation : RM 500,000.00
k) Contractor's Name & Address	ABC Construction Sdn Bhd 25, Jalan Setakawan, 50555 Kuala Lumpur

2.0 Project Risk Information

a) No. of Risks Identified Initially (from 1 st Risk Register)	Low 15 Medium 40 High 15 Extreme 15
b) No. of Initial Risks Managed (High + Extreme Risks)	30
c) No. of Emerging Risks Managed (New Risks)	4
d) No. of Risks Successfully Mitigated (Refer Section 3)	28
e) No. of Risks Not Successfully Mitigated (Refer Section 4)	6
f) Initial Risk Review Meeting	Date 1: 3 Feb 2008 Date 2: 16 July 2008

RISK MANAGEMENT FINAL REPORT TEMPLATE (REV. 2.0)

1



3.0 Risk Events Successfully Mitigated

Risk Ref.	Risk Title	Inherent Rating	Final Rating	Action Taken	Reason For Success	Lessons Learned
1.1	Lack of understanding of the scope by the project team will lead to project deliverables not meeting the satisfaction of clients	E	M	<ul style="list-style-type: none"> Client's project brief and SOW was received on 13/02/08 and scope was signed on 17/3/08 The R&R of UPNM and PROKOM was discussed and agreed on 7/3/2008 Progress meetings with client have been scheduled every other Thursday starting from 21/2/2008 Official LoA to JKR as project implementer was issued by KPT on 22/02/08 	High commitment from UPNM VC & good communication skills from Project Director	Project director must practice good communication to get client involved in decision making
1.2	Delay in confirmation of site location will cause inability for Need Statement to be finalised and will lead to delay in calling of tender	E	M	<ul style="list-style-type: none"> Written confirmation on site location was received on 28/2/08 Cost analysis of the proposals was sent to Client on 18/3/08 Confirmation on site development and existing buildings to be demolished was endorsed on 17/3/08 		



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4.0 Risks Events Not Successfully Mitigated

Risk Ref.	Risk Title	Inherent Rating	Final Rating	Proposed Treatment Measures	Reason For Failure	Lessons Learned
4.2	There is a risk that stringent security procedures will prolong the security clearance of the workers and materials which delay the progress of works.	E	H	<ul style="list-style-type: none"> Negotiate with army commander to get priority on processing of security passes 	Camp policy does not allow priority in processing security passes	Check current policies beforehand

5.0 Risk Statistics

5.1	Percentage of Success of Risks Managed	$\frac{2(d)}{[2(b)+2(c)]} \%$	$\frac{28}{30+4} \%$	82.3 %
5.2	Percentage of Failure of Risks Managed	$\frac{2(e)}{[2(b)+2(c)]} \%$	$\frac{6}{30+4} \%$	17.7 %



6.0 Project Benefits

RISK MANAGEMENT FINAL REPORT TEMPLATE (REV. 2.0)

4



To Confirm:-

- *Report goes where?*
- *Report to who?*
- *Report to be shared with who? And how?*

8.7: Exercise

Exercise 1: Risk Identification

- **Using the Risk Register Template, identify risks in all project phases (minimum 2 risks/phase)**

(15 minutes)

Project Risk Management Template: Risk Register



PENGURUSAN PROJEK

Daftar Risiko

Rujukan : JKR.PMMM.06
No. Muka surat : 1
No. Keluaran : 1
No. Semakan : 1
Tarikh : 17.07.2013

Tajuk Projek :	Tarikh :
Rujukan SKALA/SPP II/ Fail :	Disediakan Oleh :
Pengurus Projek :	Dikajisemula Oleh :

KATEGORI RISIKO PROJEK		Kadar Kemungkinan	Kadar Impak	Matriks Risiko							Nota Kadar Risiko	
1. Politik	9. Kontrak	5. Hampir pasti	V. Sangat Besar	KEMUNGKINAN	5	T	T	T	E	E	E - Risiko Ekstrem, perlu tindakan segera T - Risiko Tinggi, akan menjejaskan projek jika tidak diurus S - Risiko Sederhana, akan memberi impak kepada masa, kos atau kualiti jika tidak diurus R - Risiko Rendah, boleh diterima, pantau sahaja.	
2. Skop	10. Teknikal	4. Besar Kemungkinan	IV. Besar		4	S	S	T	E	E		
3. Jadual	11. Alam Sekitar	3. Mungkin	III. Sederhana		3	R	S	S	T	E		
4. Kewangan	12. Pembekal	2. Kemungkinan Kecil	II. Kecil		2	R	R	S	T	T		
5. Sumber Manusia	13. Hubungan Agensi	1. Jarang-jarang	I. Tidak Signifikan		1	R	R	S	S	T		
6. Kualiti	14. Organisasi	ARAHAN: Sila gunakan Matriks Risiko untuk mendapatkan Kadar Risiko				I	II	III	IV	V		
7. Komunikasi	15. Kesihatan dan Keselamatan Pekerjaan				IMPAK							
8. Lain-lain Sumber	16. Budaya dan Sosial											

Exercise 2: Risk Analysis

Using the risk analysis template:

- **For all of the risks identified, determine the likelihood and impact**
- **Find the risk rating using the risk matrix**
- **Determine the major risks**

(10 minutes)

Project Risk Management Example: Risk Analysis

2.0	DESIGN RISK				
2.1	There is risk in delaying project approval due to the change of building height to the conformance HIA/UNESCO requirement thus delaying the project completion.	2	5	V	E
2.2	There is a risk of using flat roof due to frequent/costly maintenance work after defect liability period.	6	4	III	H
2.3	There is a risk that IBS Score may not achieve 70% as per contract requirement that may cause in contractual obligation	9	5	V	E
2.4	There is a risk of Late Conceptual Drawing Approval From Client/End User that may cause delay detail design progress.	3	4	III	H
2.5	There is a risk of late submission by contractor for JKR HODT endorsement that may cause project to delay in progress.	3	3	IV	H
2.6	There is a risk of AHU Relocation due to design changes that may cause constrain of space area	10	4	IV	E
2.7	There is a risk of Light Fittings due to design changes at the Roof Area that may cause project to delay in progress.	10	5	III	H
2.8	There is a risk of Changes Of Authority requirement After Approval that may cause delay on work progress	10	2	IV	H
2.9	There is a risk of Late Of Subcontractors appointment that may cause delay on work progress	3	3	V	E
3.0	PROCUREMENT RISK				
4.0	CONSTRUCTION RISK				

8.8: Summary

- ✓ Risk management is not a one-off activity. Risk should be actively monitored and reviewed regularly throughout the project life cycle.
- ✓ Successful risk management requires senior management commitment, ownership and understanding of the process.

REFERENCES

- Project Risk Management Policy 18 June 2009
- Risk Management Manual Ver. 1.2 10 Oct 2008
- Project Risk Management Facilitation Guidelines Ver. 2.3
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- Generic Risks in JKR Project Ver 1.0 28 Mei 08
- Surat Arahan KPKR Bil. 10/2012 : Pelaksanaan Pengurusan Risiko
untuk Projek Pembangunan di bawah Tanggungjawab JKR
- ISO 31000: 2009 Risk Management-Principles and Guidelines
- JKR Competency Standards for Qualified Project Practitioner
Version 1.0 Nov 2010
- Prokom Website : prokom.jkr.gov.my

**Thank
You**

Mahalo

Kiitos

**Gamsa
Hamida**

Tach

Toda

Grazie

Obrigado

Thanks

Takk

Gracias

Merci

**Terima
Kasih**