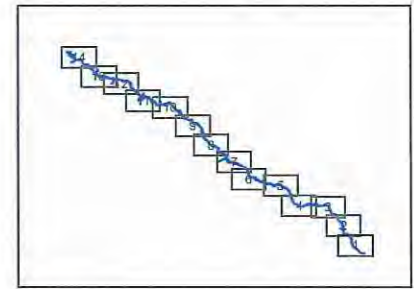


APPENDIX T

HAZARD MAPS ALONG KINYASUNGWE/MKONDOA RIVER



LEGEND OF FLOODED AREA:

- Dec.1997/Jan.1998 Flood (Source:TRL)
- ★ 2011/2012 Flood (Source:CPCS)

LEGEND OF PIPE / BOX CULVERTS:

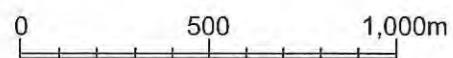
- Pipe or Box Culvert
- ⊗ Pipe or Box Culvert at high risk identified by "Flood Risk Assessment" conducted in Dec.2014

- River
- Flood Prone Area
- River Cross Section (March-June,2015)
- ++++ Existing Railway
- - - - Rerouting Line
- Bank Protection
- ++□++ Railway Station
- Flood Mark

Location of Staff Gauges

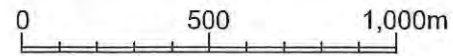
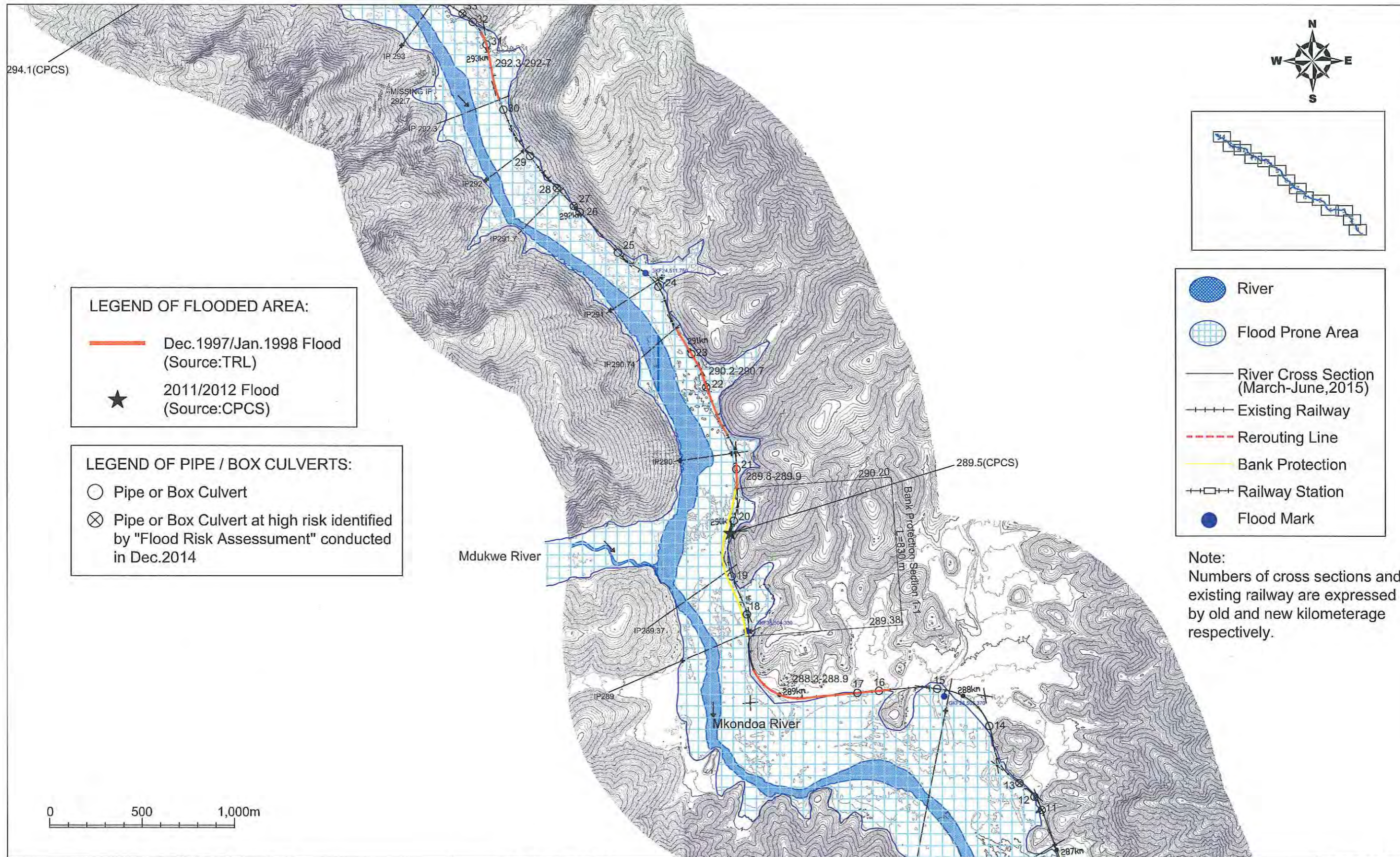
Location	River	Latitude	Longitude	River Bank
Kilosa	Mkondoa River	S6°49'54.4"	E36°58'41.2"	Left
Lumuma Bridge	Lumuma River	S6°38'57"	E36°42'19"	Left
Matomondo Village*	Mangweta River	S6°26'30.4"	E36°38'26.4"	Left
Gulwe	Kinyasungwe River	S6°26'58"	E36°24'48.9"	Left
Mzase River*	Mzase River	S6°27'22.5"	E36°24'11.1"	Right

Note:Installed by the current study
 *, Beyond the limit of map area



Note:
 Numbers of cross sections and existing railway are expressed by old and new kilometerage respectively.

GOVERNMENT AGENCIES:		JICA STUDY TEAM:	PROJECT & LOCATION:	SHEET CONTENTS:	DWG NUM
JAPAN International Cooperation Agency	Reli Assets Holding Company (RAHCO), Tanzania	PADECO Co., Ltd., Nippon Koei Co., Ltd., Japan International Consultants for Transportation Co., Ltd., and Fukken Engineering Co., Ltd.	Preparatory Survey on Flood Protection Measures for Central Railway Line in the United Republic of Tanzania	FLOOD HAZARD MAP (1/14) Scale:1/20000	DFR H 1

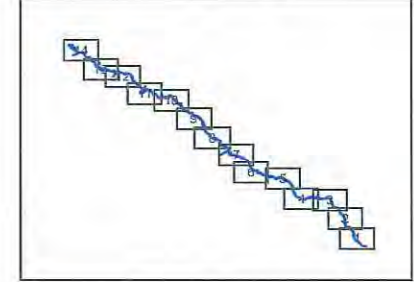


GOVERNMENT AGENCIES:		JICA STUDY TEAM:	PROJECT & LOCATION:	SHEET CONTENTS:	DWG NUM
JAPAN International Cooperation Agency	Reli Assets Holding Company (RAHCO), Tanzania	PADECO Co., Ltd., Nippon Koei Co., Ltd., Japan International Consultants for Transportation Co., Ltd., and Fukken Engineering Co., Ltd.	Preparatory Survey on Flood Protection Measures for Central Railway Line in the United Republic of Tanzania	FLOOD HAZARD MAP (2/14) Scale:1/20000	DFR H 2



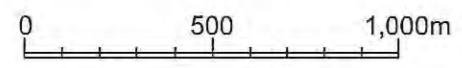
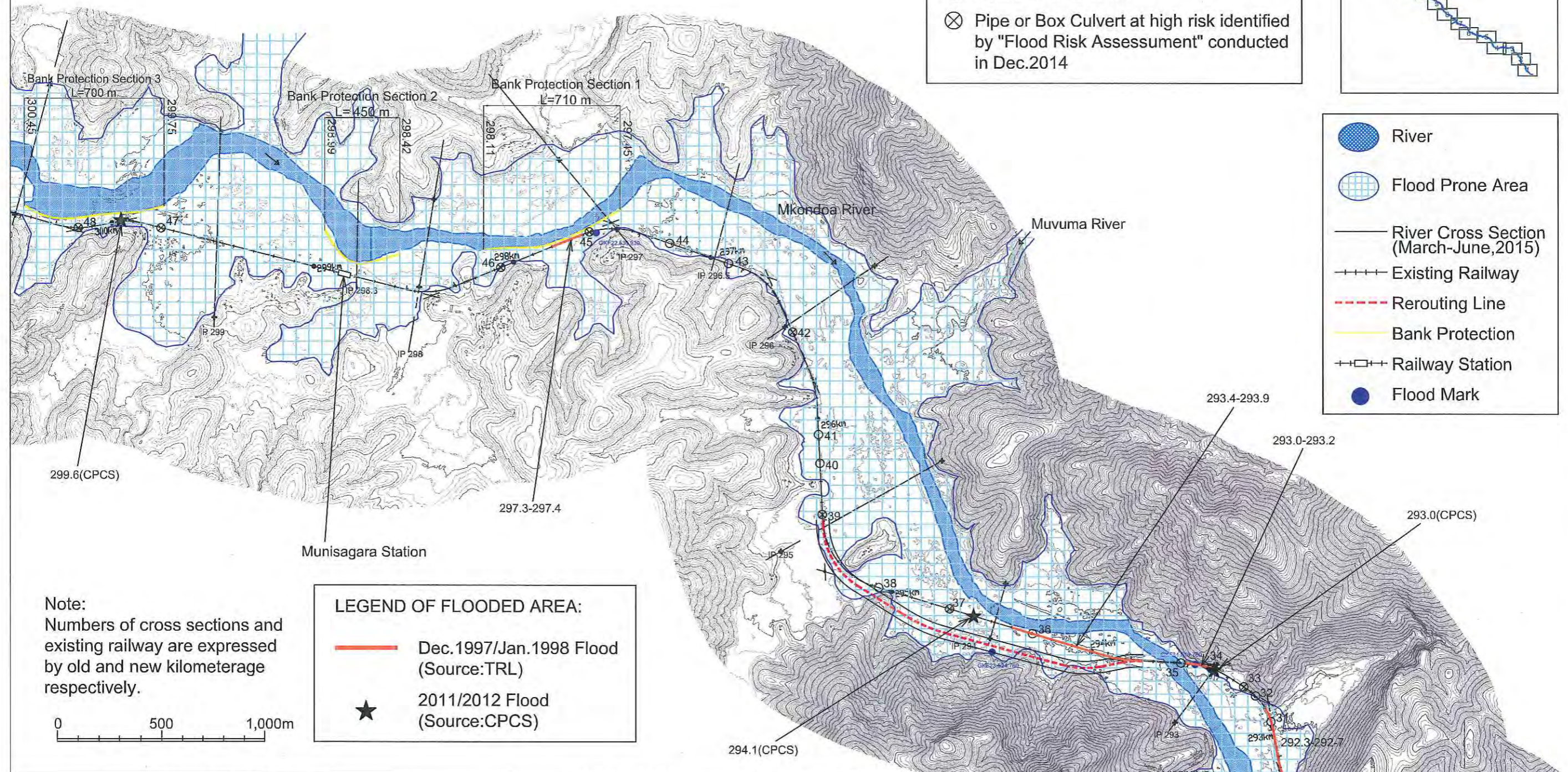
LEGEND OF PIPE / BOX CULVERTS:

- Pipe or Box Culvert
- ⊗ Pipe or Box Culvert at high risk identified by "Flood Risk Assessment" conducted in Dec.2014





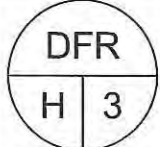
LEGEND OF FLOODED AREA:

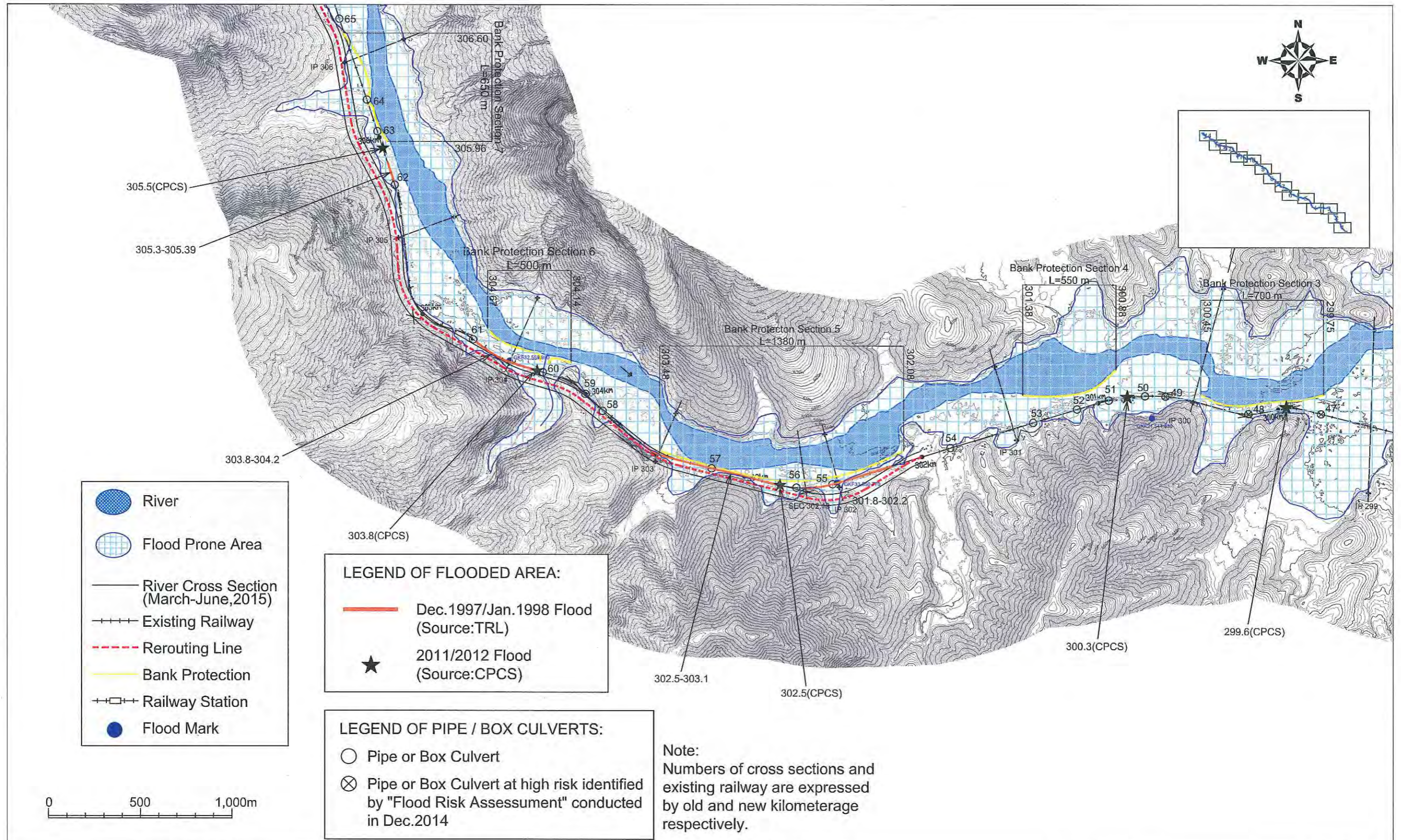
- River
- ◌ Flood Prone Area
- River Cross Section (March-June,2015)
- ++++ Existing Railway
- - - Rerouting Line
- Bank Protection
- +□+ Railway Station
- Flood Mark



LEGEND OF FLOODED AREA:

- Dec.1997/Jan.1998 Flood (Source:TRL)
- ★ 2011/2012 Flood (Source:CPCS)

GOVERNMENT AGENCIES:		JICA STUDY TEAM:	PROJECT & LOCATION:	SHEET CONTENTS:	DWG NUM
 JAPAN International Cooperation Agency	 Reli Assets Holding Company (RAHCO), Tanzania	PADECO Co., Ltd., Nippon Koei Co., Ltd., Japan International Consultants for Transportation Co., Ltd., and Fukken Engineering Co., Ltd.	Preparatory Survey on Flood Protection Measures for Central Railway Line in the United Republic of Tanzania	FLOOD HAZARD MAP (3/14) Scale:1/20000	



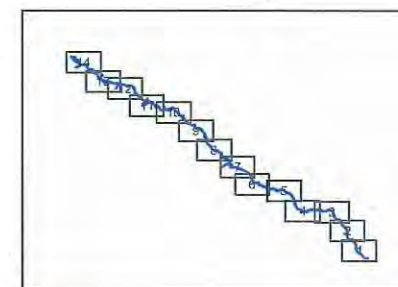
- River
- Flood Prone Area
- River Cross Section (March-June, 2015)
- Existing Railway
- Rerouting Line
- Bank Protection
- Railway Station
- Flood Mark

- LEGEND OF FLOODED AREA:**
- Dec. 1997/Jan. 1998 Flood (Source: TRL)
 - 2011/2012 Flood (Source: CPCS)

- LEGEND OF PIPE / BOX CULVERTS:**
- Pipe or Box Culvert
 - Pipe or Box Culvert at high risk identified by "Flood Risk Assessment" conducted in Dec. 2014

Note:
Numbers of cross sections and existing railway are expressed by old and new kilometrage respectively.

GOVERNMENT AGENCIES:		JICA STUDY TEAM:	PROJECT & LOCATION:	SHEET CONTENTS:	DWG NUM
JAPAN International Cooperation Agency	Reli Assets Holding Company (RAHCO), Tanzania	PADECO Co., Ltd., Nippon Koei Co., Ltd., Japan International Consultants for Transportation Co., Ltd., and Fukken Engineering Co., Ltd.	Preparatory Survey on Flood Protection Measures for Central Railway Line in the United Republic of Tanzania	FLOOD HAZARD MAP (4/14) Scale: 1/20000	



LEGEND OF FLOODED AREA:

— Dec.1997/Jan.1998 Flood (Source:TRL)

★ 2011/2012 Flood (Source:CPCS)

● River

▨ Flood Prone Area

— River Cross Section (March-June,2015)

--- Existing Railway

- - - Rerouting Line

— Bank Protection

⊠ Railway Station

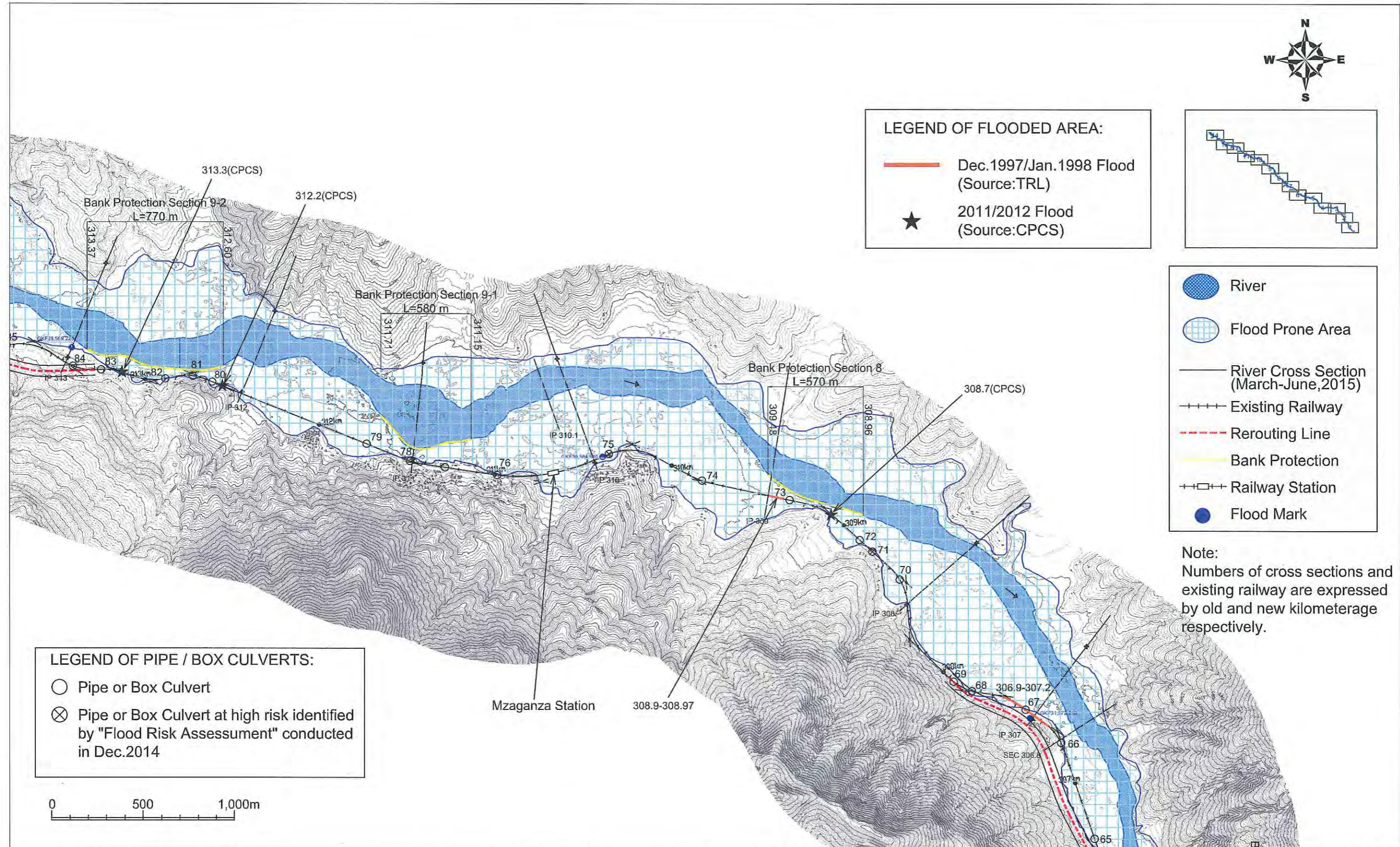
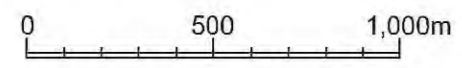
● Flood Mark



Note:
Numbers of cross sections and existing railway are expressed by old and new kilometrage respectively.

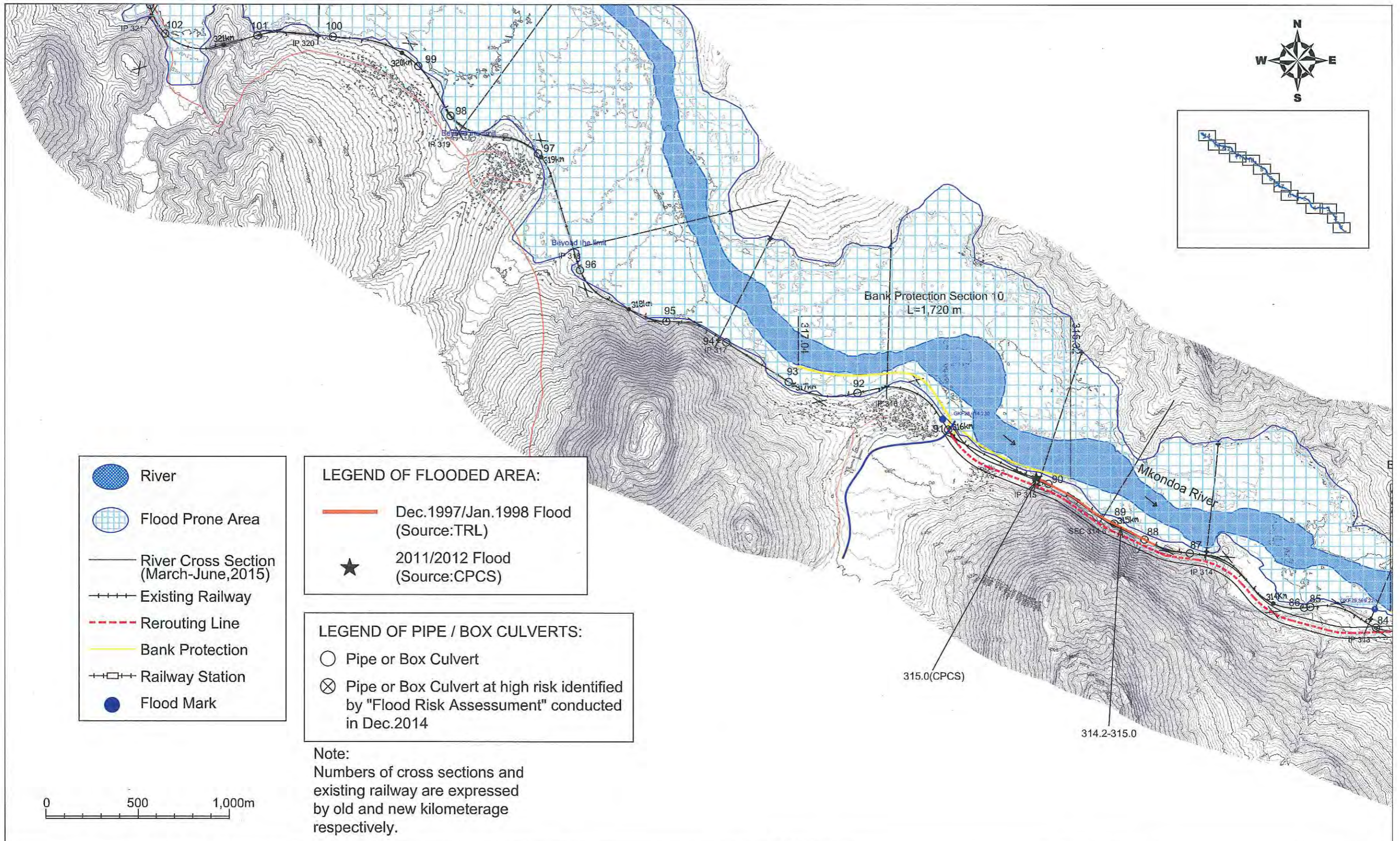
LEGEND OF PIPE / BOX CULVERTS:

○ Pipe or Box Culvert

⊗ Pipe or Box Culvert at high risk identified by "Flood Risk Assessment" conducted in Dec.2014



GOVERNMENT AGENCIES:		JICA STUDY TEAM:	PROJECT & LOCATION:	SHEET CONTENTS:	DWG NUM
 JAPAN International Cooperation Agency	 Reli Assets Holding Company (RAHCO), Tanzania	PADECO Co., Ltd., Nippon Koei Co., Ltd., Japan International Consultants for Transportation Co., Ltd., and Fukken Engineering Co., Ltd.	Preparatory Survey on Flood Protection Measures for Central Railway Line in the United Republic of Tanzania	FLOOD HAZARD MAP (5/14) Scale:1/20000	DFR H 5



- River
- Flood Prone Area
- River Cross Section (March-June, 2015)
- Existing Railway
- Rerouting Line
- Bank Protection
- Railway Station
- Flood Mark

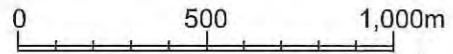
LEGEND OF FLOODED AREA:

- Dec. 1997/Jan. 1998 Flood (Source:TRL)
- 2011/2012 Flood (Source:CPCS)

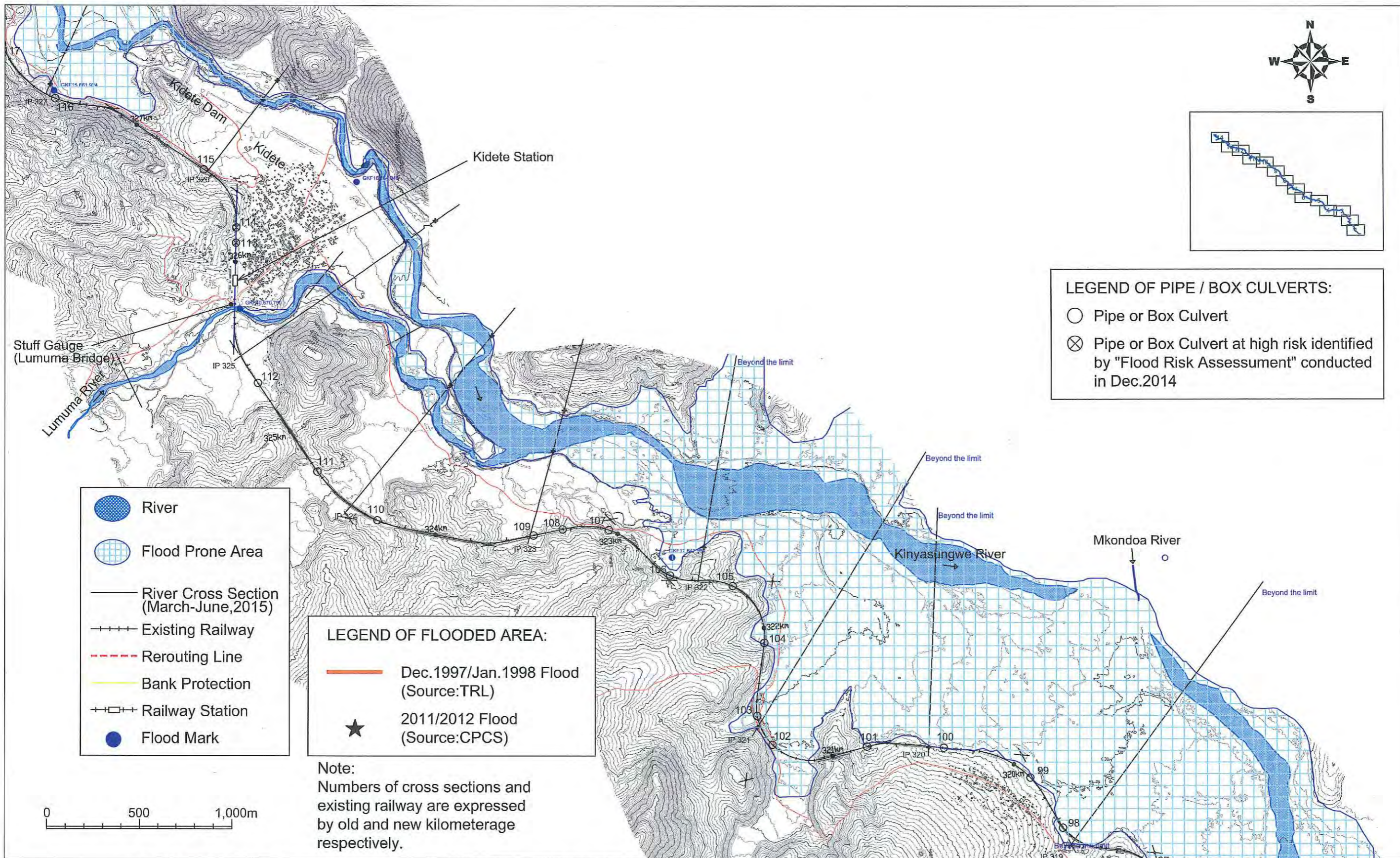
LEGEND OF PIPE / BOX CULVERTS:

- Pipe or Box Culvert
- Pipe or Box Culvert at high risk identified by "Flood Risk Assessment" conducted in Dec. 2014

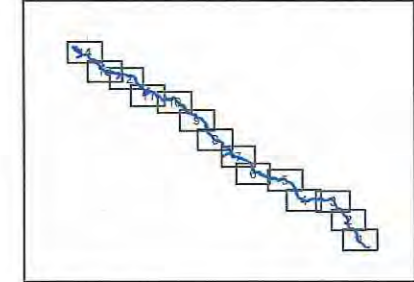
Note:
Numbers of cross sections and existing railway are expressed by old and new kilometerage respectively.



GOVERNMENT AGENCIES:		JICA STUDY TEAM:	PROJECT & LOCATION:	SHEET CONTENTS:	DWG NUM
JAPAN International Cooperation Agency	Reli Assets Holding Company (RAHCO), Tanzania	PADECO Co., Ltd., Nippon Koei Co., Ltd., Japan International Consultants for Transportation Co., Ltd., and Fukken Engineering Co., Ltd.	Preparatory Survey on Flood Protection Measures for Central Railway Line in the United Republic of Tanzania	FLOOD HAZARD MAP (6/14) Scale: 1/20000	



GOVERNMENT AGENCIES:		JICA STUDY TEAM:	PROJECT & LOCATION:	SHEET CONTENTS:	DWG NUM
JAPAN International Cooperation Agency	Reli Assets Holding Company (RAHCO), Tanzania	PADECO Co., Ltd., Nippon Koei Co., Ltd., Japan International Consultants for Transportation Co., Ltd., and Fukken Engineering Co., Ltd.	Preparatory Survey on Flood Protection Measures for Central Railway Line in the United Republic of Tanzania	FLOOD HAZARD MAP (7/14) Scale:1/20000	DFR H 7



LEGEND OF PIPE / BOX CULVERTS:

- Pipe or Box Culvert
- ⊗ Pipe or Box Culvert at high risk identified by "Flood Risk Assessment" conducted in Dec.2014

● River

▨ Flood Prone Area

— River Cross Section (March-June,2015)

++++ Existing Railway

- - - Rerouting Line

— Bank Protection

++□++ Railway Station

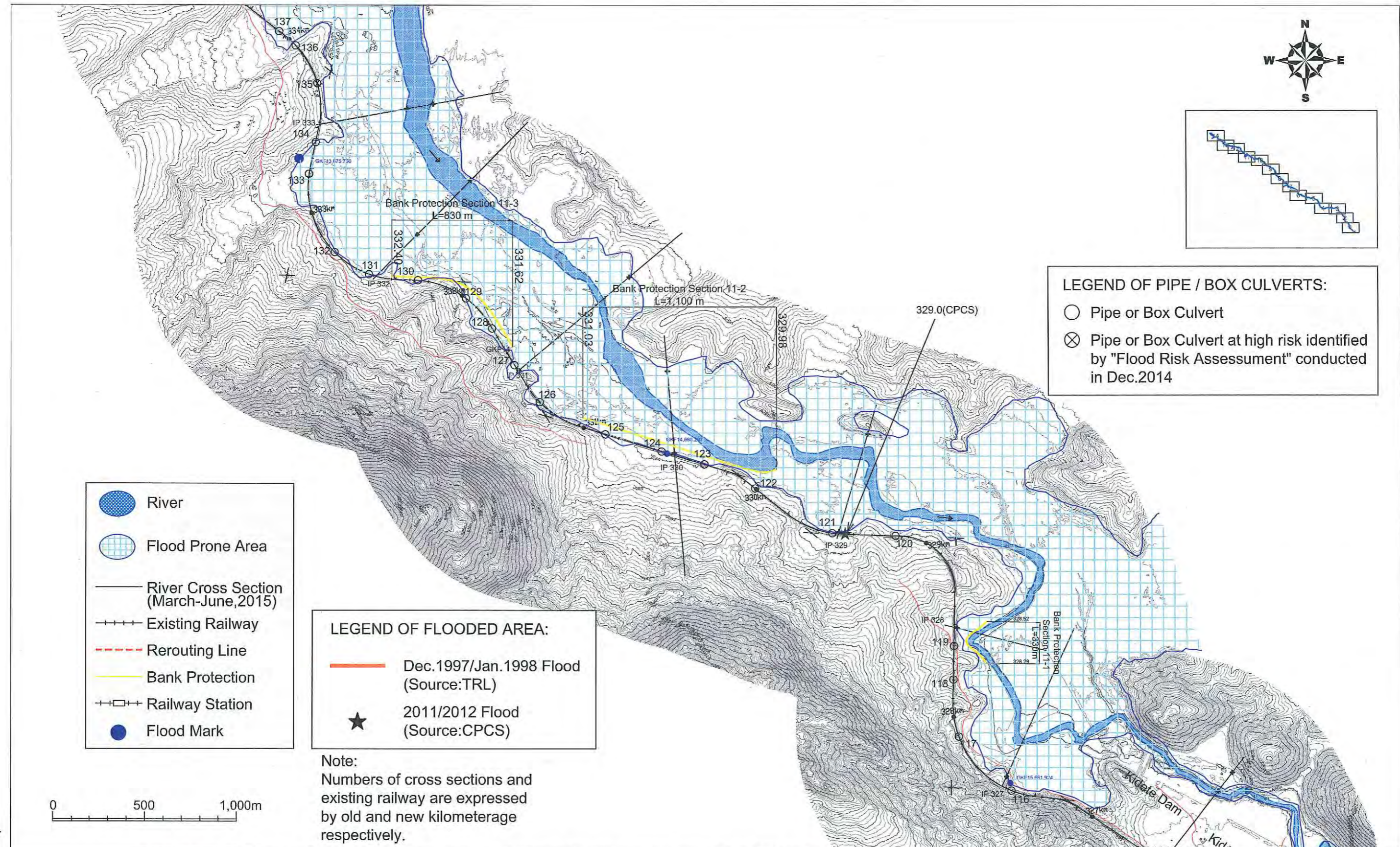
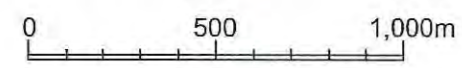
● Flood Mark

LEGEND OF FLOODED AREA:

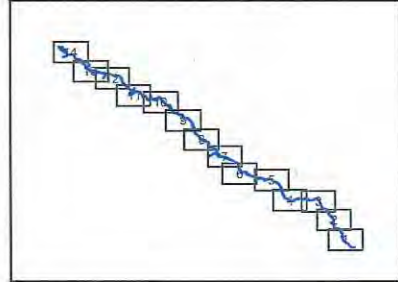
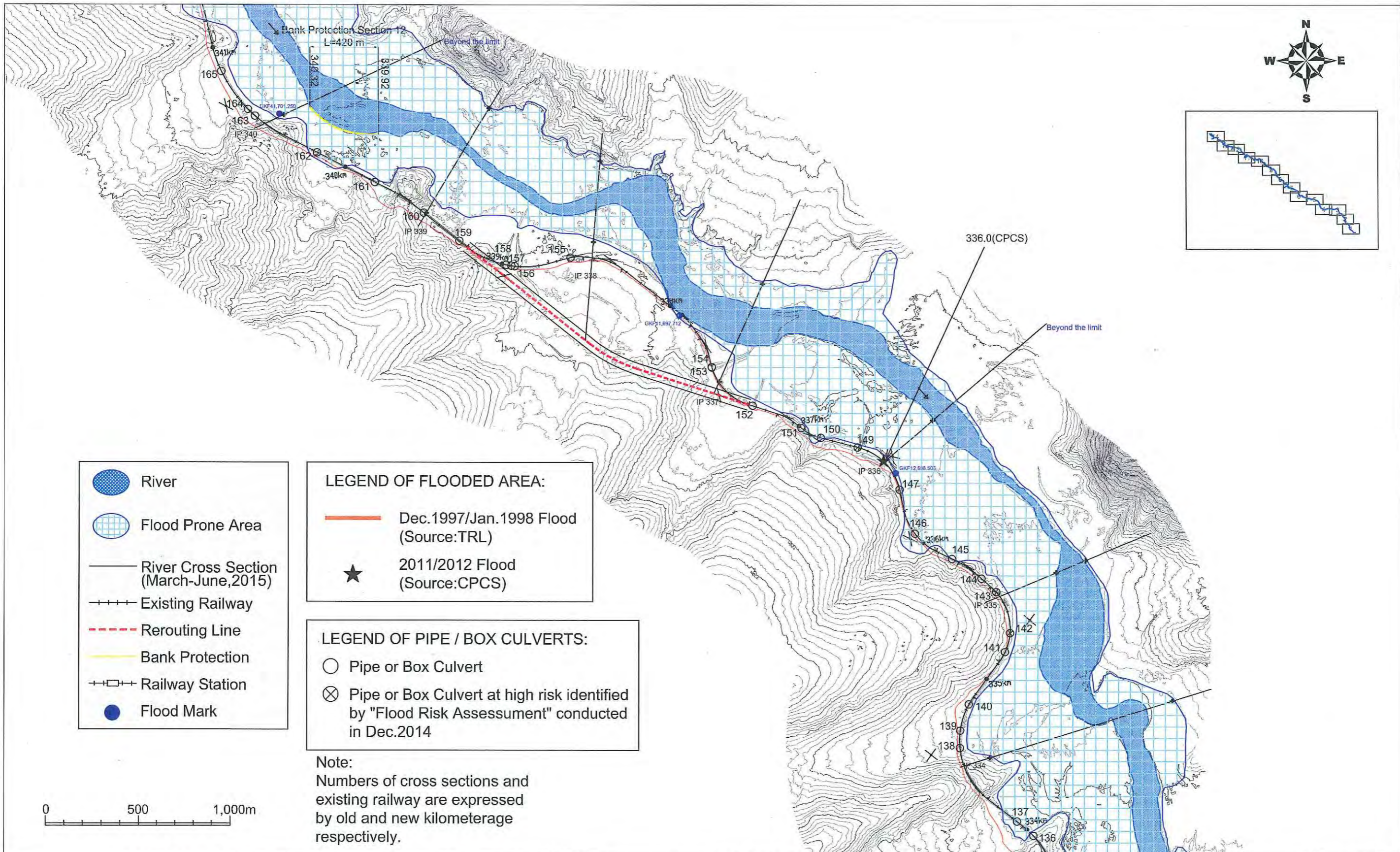
— Dec.1997/Jan.1998 Flood (Source:TRL)

★ 2011/2012 Flood (Source:CPCS)

Note:
Numbers of cross sections and existing railway are expressed by old and new kilometrage respectively.



GOVERNMENT AGENCIES:		JICA STUDY TEAM:	PROJECT & LOCATION:	SHEET CONTENTS:	DWG NUM
JAPAN International Cooperation Agency	Reli Assets Holding Company (RAHCO), Tanzania	PADECO Co., Ltd., Nippon Koei Co., Ltd., Japan International Consultants for Transportation Co., Ltd., and Fukken Engineering Co., Ltd.	Preparatory Survey on Flood Protection Measures for Central Railway Line in the United Republic of Tanzania	FLOOD HAZARD MAP (8/14) Scale:1/20000	DFR H 8





LEGEND OF FLOODED AREA:

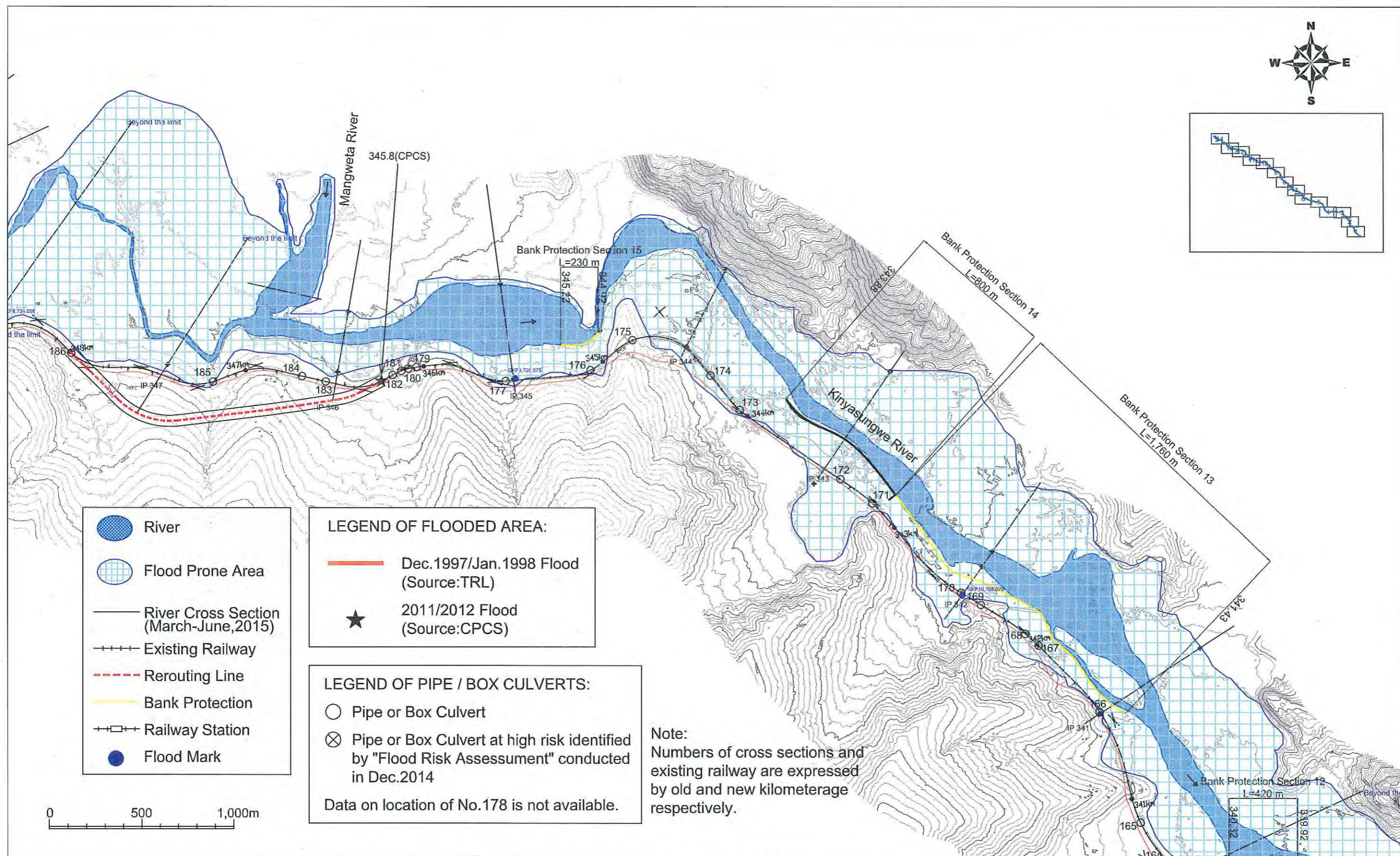
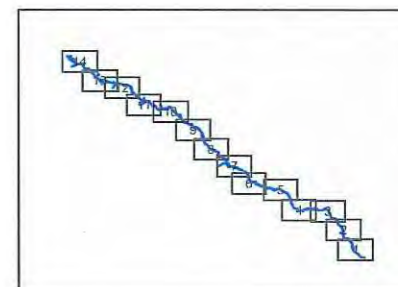
- Dec.1997/Jan.1998 Flood (Source:TRL)
- ★ 2011/2012 Flood (Source:CPCS)

LEGEND OF PIPE / BOX CULVERTS:

- Pipe or Box Culvert
- ⊗ Pipe or Box Culvert at high risk identified by "Flood Risk Assessment" conducted in Dec.2014

Note:
 Numbers of cross sections and existing railway are expressed by old and new kilometerage respectively.

GOVERNMENT AGENCIES:		JICA STUDY TEAM:	PROJECT & LOCATION:	SHEET CONTENTS:	DWG NUM
 JAPAN International Cooperation Agency	 Reli Assets Holding Company (RAHCO), Tanzania	PADECO Co., Ltd., Nippon Koei Co., Ltd., Japan International Consultants for Transportation Co., Ltd., and Fukken Engineering Co., Ltd.	Preparatory Survey on Flood Protection Measures for Central Railway Line in the United Republic of Tanzania	FLOOD HAZARD MAP (9/14) Scale:1/20000	<div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 0 auto;"> <div style="border-right: 1px solid black; padding: 5px;">DFR</div> <div style="padding: 5px;">H 9</div> </div>

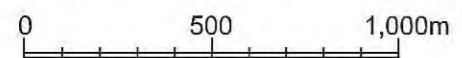


- River
- Flood Prone Area
- River Cross Section (March-June, 2015)
- Existing Railway
- Rerouting Line
- Bank Protection
- Railway Station
- Flood Mark

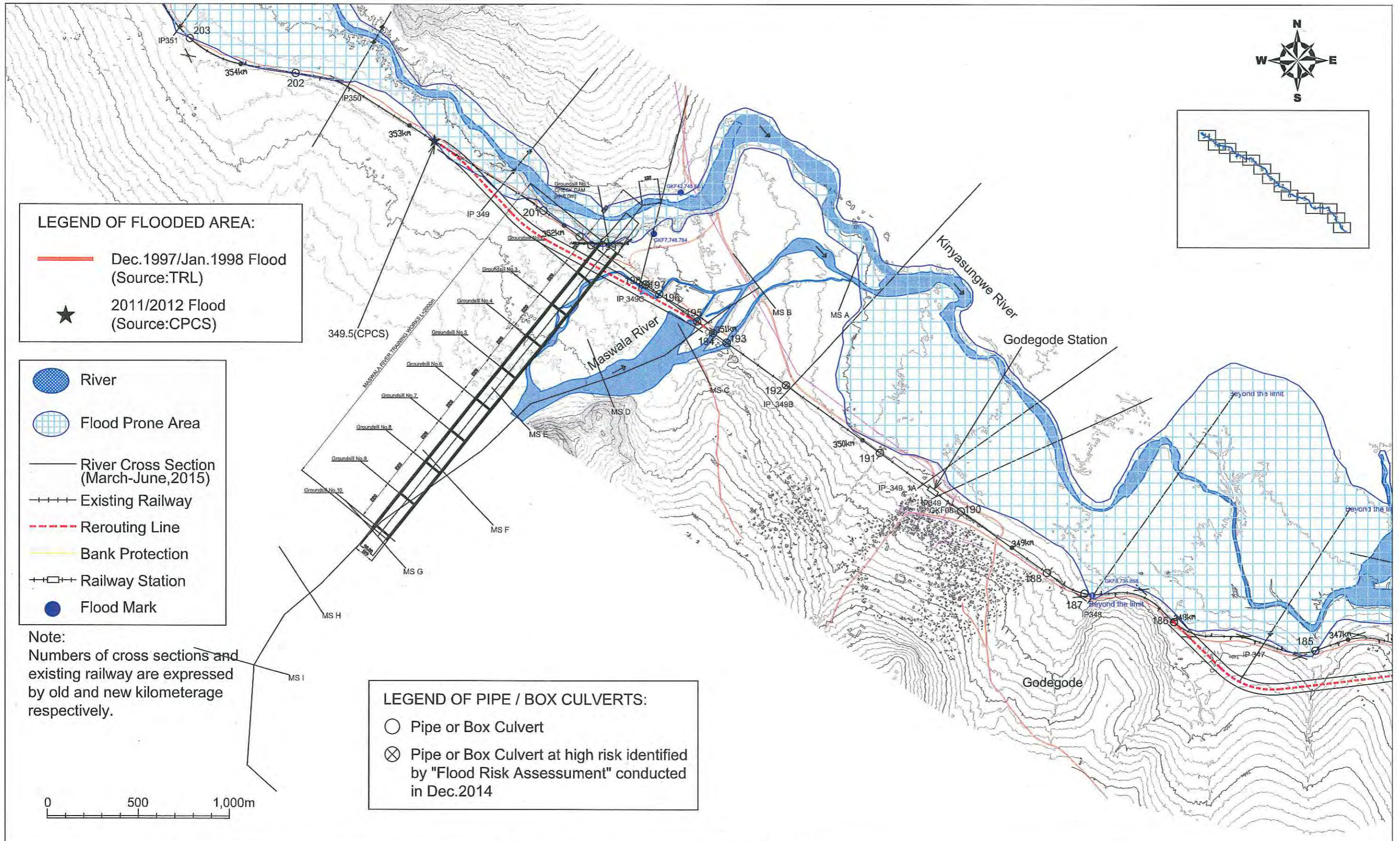
- LEGEND OF FLOODED AREA:**
- Dec. 1997/Jan. 1998 Flood (Source:TRL)
 - 2011/2012 Flood (Source:CPCS)

- LEGEND OF PIPE / BOX CULVERTS:**
- Pipe or Box Culvert
 - Pipe or Box Culvert at high risk identified by "Flood Risk Assessment" conducted in Dec. 2014
- Data on location of No. 178 is not available.

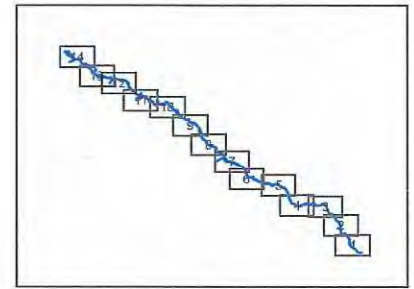
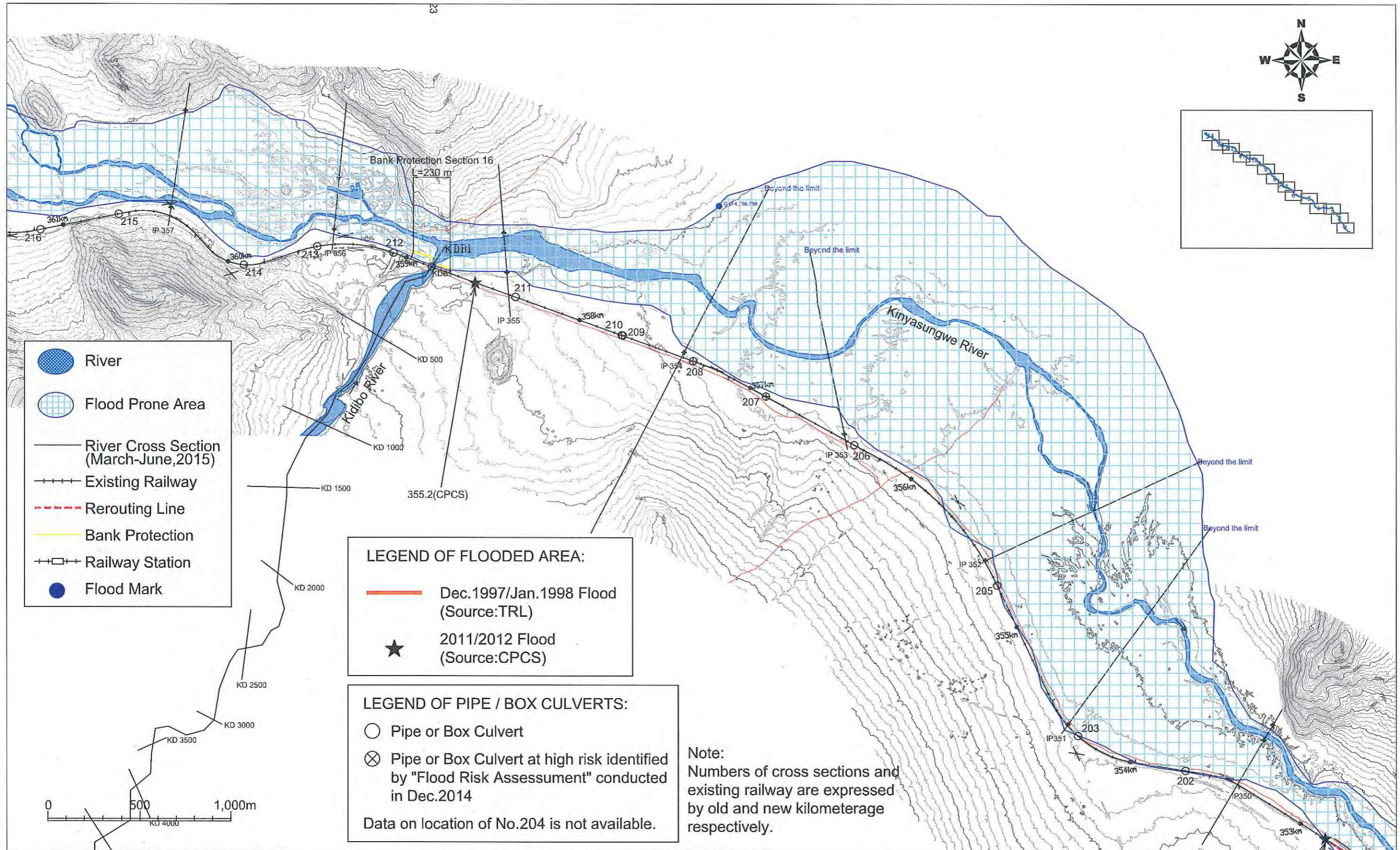
Note:
Numbers of cross sections and existing railway are expressed by old and new kilometrage respectively.



GOVERNMENT AGENCIES:		JICA STUDY TEAM:	PROJECT & LOCATION:	SHEET CONTENTS:	DWG NUM
JAPAN International Cooperation Agency	Reli Assets Holding Company (RAHCO), Tanzania	PADECO Co., Ltd., Nippon Koei Co., Ltd., Japan International Consultants for Transportation Co., Ltd., and Fukken Engineering Co., Ltd.	Preparatory Survey on Flood Protection Measures for Central Railway Line in the United Republic of Tanzania	FLOOD HAZARD MAP (10/14) Scale: 1/20000	



GOVERNMENT AGENCIES:		JICA STUDY TEAM:	PROJECT & LOCATION:	SHEET CONTENTS:	DWG NUM
JAPAN International Cooperation Agency	Reli Assets Holding Company (RAHCO), Tanzania	PADECO Co., Ltd., Nippon Koei Co., Ltd., Japan International Consultants for Transportation Co., Ltd., and Fukken Engineering Co., Ltd.	Preparatory Survey on Flood Protection Measures for Central Railway Line in the United Republic of Tanzania	FLOOD HAZARD MAP (11/14) Scale:1/20000	

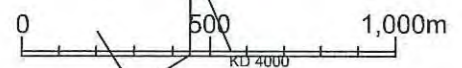


- River
- Flood Prone Area
- River Cross Section (March-June, 2015)
- Existing Railway
- Rerouting Line
- Bank Protection
- Railway Station
- Flood Mark

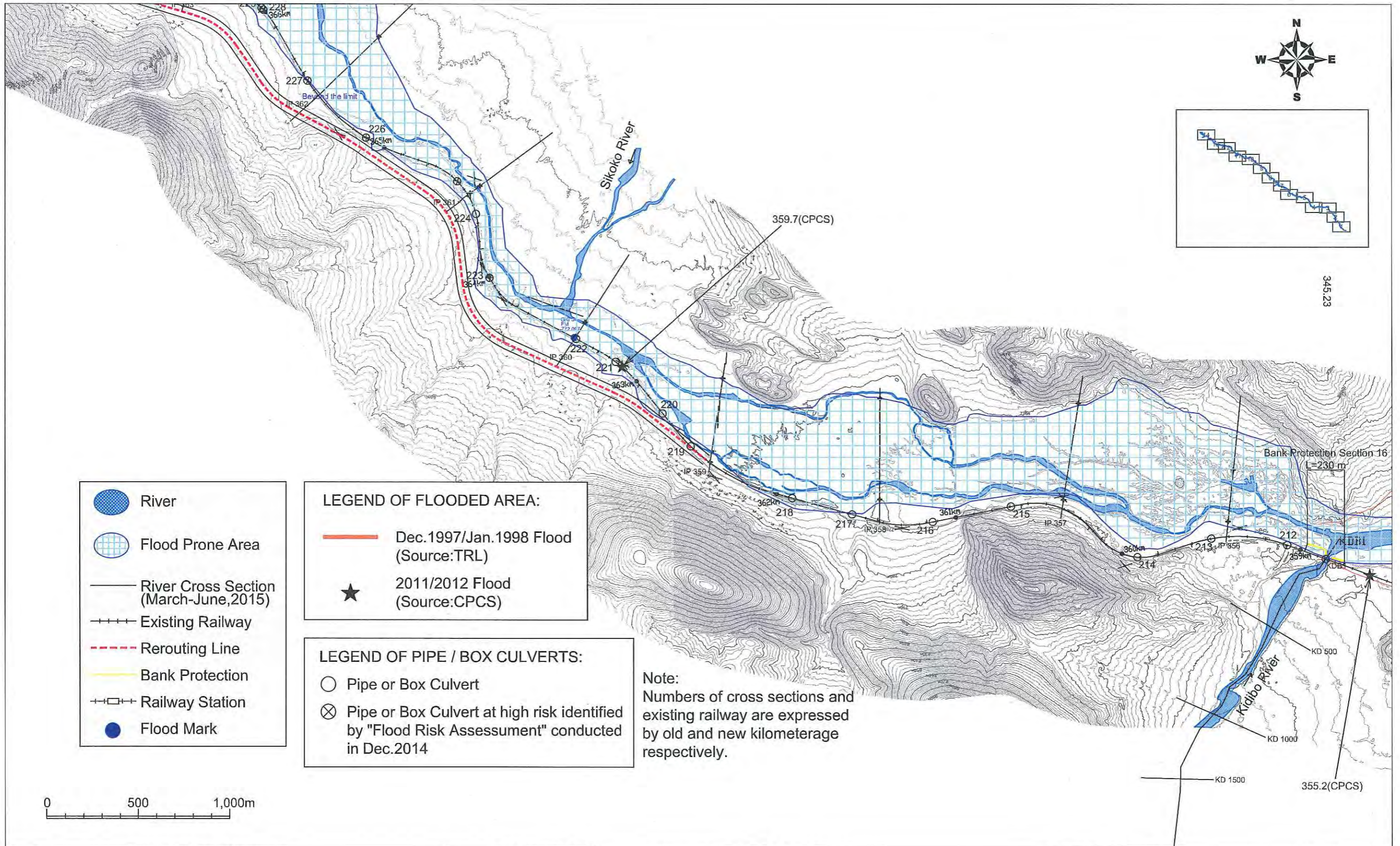
- LEGEND OF FLOODED AREA:**
- Dec. 1997/Jan. 1998 Flood (Source:TRL)
 - 2011/2012 Flood (Source:CPCS)

- LEGEND OF PIPE / BOX CULVERTS:**
- Pipe or Box Culvert
 - Pipe or Box Culvert at high risk identified by "Flood Risk Assessment" conducted in Dec. 2014
- Data on location of No. 204 is not available.

Note:
Numbers of cross sections and existing railway are expressed by old and new kilometerage respectively.



GOVERNMENT AGENCIES:		JICA STUDY TEAM:	PROJECT & LOCATION:	SHEET CONTENTS:	DWG NUM
JAPAN International Cooperation Agency	Reli Assets Holding Company (RAHCO), Tanzania	PADECO Co., Ltd., Nippon Koei Co., Ltd., Japan International Consultants for Transportation Co., Ltd., and Fukken Engineering Co., Ltd.	Preparatory Survey on Flood Protection Measures for Central Railway Line in the United Republic of Tanzania	FLOOD HAZARD MAP (12/14) Scale:1/20000	

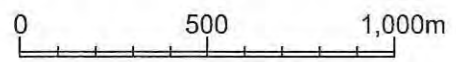


- River
- Flood Prone Area
- River Cross Section (March-June, 2015)
- Existing Railway
- Rerouting Line
- Bank Protection
- Railway Station
- Flood Mark

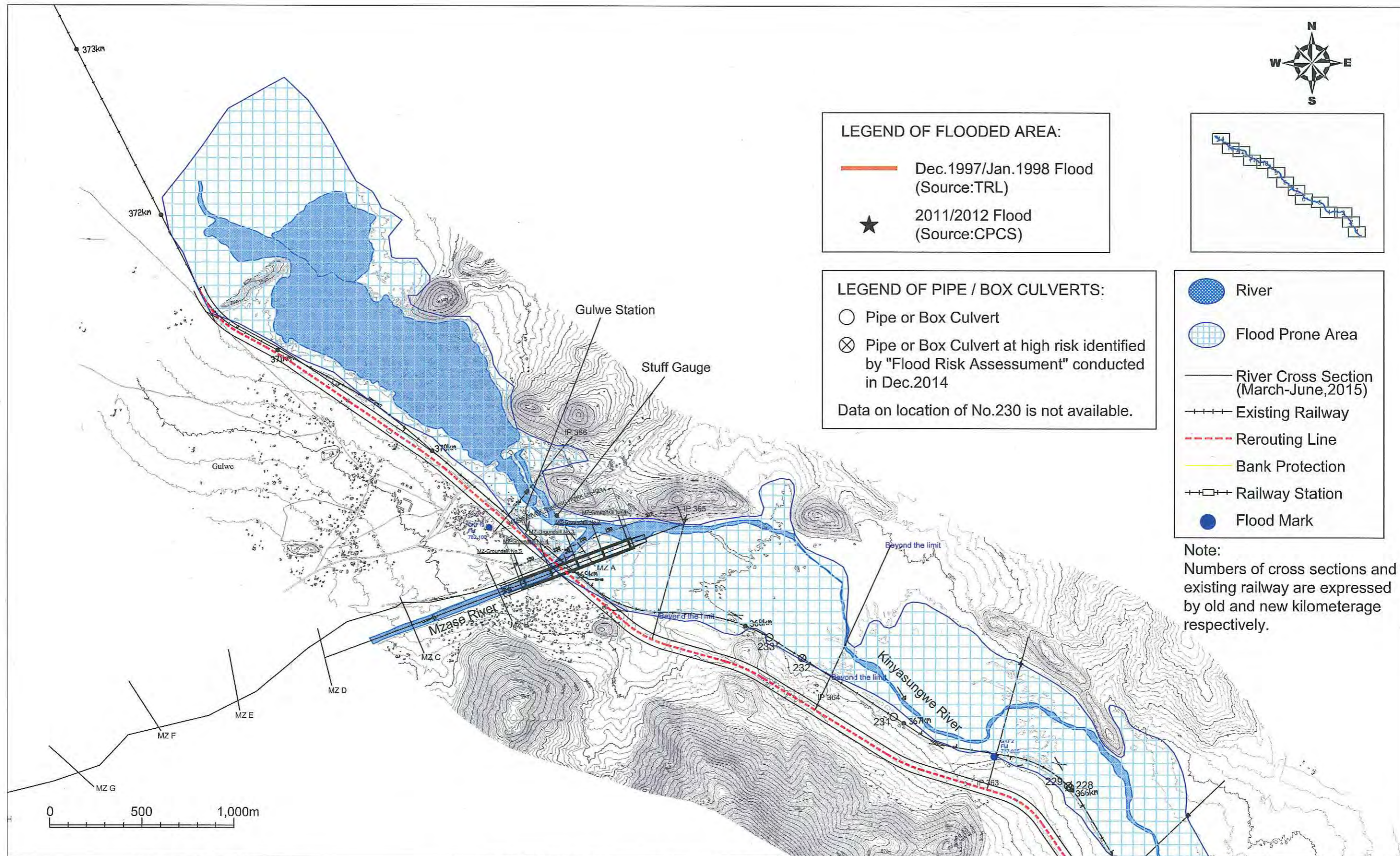
- LEGEND OF FLOODED AREA:**
- Dec. 1997/Jan. 1998 Flood (Source:TRL)
 - 2011/2012 Flood (Source:CPCS)

- LEGEND OF PIPE / BOX CULVERTS:**
- Pipe or Box Culvert
 - Pipe or Box Culvert at high risk identified by "Flood Risk Assessment" conducted in Dec. 2014

Note:
Numbers of cross sections and existing railway are expressed by old and new kilometerage respectively.



GOVERNMENT AGENCIES:		JICA STUDY TEAM:	PROJECT & LOCATION:	SHEET CONTENTS:	DWG NUM
JAPAN International Cooperation Agency	Reli Assets Holding Company (RAHCO), Tanzania	PADECO Co., Ltd., Nippon Koei Co., Ltd., Japan International Consultants for Transportation Co., Ltd., and Fukken Engineering Co., Ltd.	Preparatory Survey on Flood Protection Measures for Central Railway Line in the United Republic of Tanzania	FLOOD HAZARD MAP (13/14) Scale:1/20000	



GOVERNMENT AGENCIES:		JICA STUDY TEAM:	PROJECT & LOCATION:	SHEET CONTENTS:	DWG NUM
<p>JAPAN International Cooperation Agency</p>	<p>Reli Assets Holding Company (RAHCO), Tanzania</p>	<p>PADECO Co., Ltd., Nippon Koei Co., Ltd., Japan International Consultants for Transportation Co., Ltd., and Fukken Engineering Co., Ltd.</p>	<p>Preparatory Survey on Flood Protection Measures for Central Railway Line in the United Republic of Tanzania</p>	<p>FLOOD HAZARD MAP (14/14) Scale:1/20000</p>	<div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; flex-direction: column; align-items: center; justify-content: center;"> <div style="border-bottom: 1px solid black; width: 100%; text-align: center;">DFR</div> <div style="width: 100%; text-align: center;">H 14</div> </div>

APPENDIX V

ALIGNMENT DRAWING OF REROUTING LINE

<This Appendix has been removed
because of confidential information.>

APPENDIX W

ALIGNMENT DRAWING OF EXISTING LINE

<This Appendix has been removed
because of confidential information.>

APPENDIX Y

ALIGNMENT DESIGN DRAWINGS (RAILWAY)

<This Appendix has been removed
because of confidential information.>