

Annex 1 Generation of the Orthophoto

Aerial photographs were used to generate an orthophoto covering part of Kirtipur Municipality. The details are given below.

Aerial photographs

Source:	Nepal Telecommunications Corporation
Scale:	1:10,000
Date:	16-03-1992
Scanning resolution:	12000 dpi

Specifications used to generate the orthophoto

1. Geometric Model:	Frame Camera
2. Reference System	
a. Projection:	ORG-87
Projection Type:	Transverse Mercator
Spheroid:	Everest 1956
Datum:	Indian (India, Nepal)
Scale factor at central meridian:	0.9999
Longitude of central meridian:	87:00:00E
Latitude of origin of projection:	00:00:00N
False easting:	500000.00 metres
False northing:	0.00000 metres
b. Reference Units	
Horizontal units:	Metres
Vertical units:	Metres
Angle units:	Degrees
c. Frame specific information	
Rotation system:	Omega, Phi, Kappa
Photo direction:	z-axis for normal images
Average flying height:	1540 metres
3. Camera Settings	
Camera:	Carl Zeiss
Description:	RMK Top 15
Focal Length:	154.058 mm
Principal Point (x):	0.010 mm
Principal Point (y):	0.000 mm

Fiducials:

	<u>Film X (mm)</u>
i.	112.988
ii.	-112.987
iii.	0.013
iv.	0.013
v.	112.998
vi.	-112.987
vii.	-112.989
viii.	113.008

8 nos.

<u>Film Y (mm)</u>
0.00
0.00
113.007
-113.008
113.000
-113.003
112.990
-113.003

Radial lens distortion:

	<u>Radial distance (mm)</u>
i.	0
ii.	10
iii.	20
iv.	30
v.	40
vi.	50
vii.	60
viii.	70
ix.	80
x.	90
xi.	100
xii.	110
xiii.	120
xiv.	130
xv.	140
xvi.	150

<u>Distortion (microns)</u>
0.00
0.00
-1.00
-1.00
-1.00
1.00
-1.00
2.00
1.00
0.00
-1.00
-1.00
-2.00
-1.00
0.00
0.00