

AMENDMENTS TO RFP

(a) AMENDMENTS TO RFP No. 01/CEO/JaKLaRMA/27/128

Sl. No.	Page No., Clause	Content of RFP	To be read as
1.	Page No. 3-4 Clause 2.6	<p>2.6 Schedule of Selection Process</p> <p>1.Date of issue :04-12-2014</p> <p>2.Last date for receiving queries/ clarifications :15-12-2014</p> <p>3.Agency response to queries :18-12-2014</p> <p>4.Pre-Bid Conference :23-12-2014 (11:30) IST</p> <p>5. Proposal Due Date for Submission :24-12-2014 (16:00 IST)</p> <p>6.Opening of Pre-qualification and Technical Bids :26-12-2014 (11:00 IST)</p> <p>7. Technical Presentations by qualified bidders :27-12-2014 (11:00 IST)</p> <p>8.Opening of Financial Bid : 31-12-2014 (16.00 IST)</p> <p>(Above dates may be changed, if circumstances warrant so.)</p>	<p>2.6 Schedule of Selection Process</p> <p>1.Date of issue :04-12-2014</p> <p>2.Last date for receiving queries/ Clarifications :15-12-2014</p> <p>3.Agency response to queries :18-12-2014</p> <p>4.Pre-Bid Conference :23-12-2014 (11:30) IST</p> <p>5. Proposal Due Date for Submission :22.01.2015 (16:00 IST)</p> <p>6.Opening of Pre-qualification and Technical Bids :23.01-2015 (11:00 IST)</p> <p>7. Technical Presentations by qualified bidders :30-01-2015 (11:00 IST)</p> <p>8.Opening of Financial Bid :02-02-2015 (16.00 IST)</p> <p>(Above dates may be changed, if circumstances warrant so.)</p>

2.	Page No. 4, Clause 2.8	<p>2.8 Pre-Bid Conference</p> <p>The date, time and venue of Pre-Bid Conference shall be :</p> <p>Date : 22.12.2014</p> <p>Time : 11:30 hrs</p> <p>Venue : Conference Hall, FC(R)'s office, Jammu.</p>	<p>2.8 Pre-Bid Conference</p> <p>The date, time and venue of Pre-Bid Conference shall be :</p> <p>Date : 23.12.2014</p> <p>Time : 11:30 hrs</p> <p>Venue : Conference Hall, FC(R)'s office, Jammu.</p>
3.	Page No. 36, Clause 17.1	<p>Digitization (vectorisation) of current / serving Cadastral Maps / Musavis;</p> <p>a) Agency will provide the current musavis and RoR data and vendor agency will scan the musavis and update the same assisted by the Patwari. The vendor agency will carry out digitisation (in defined time frame strictly). Digitized musavis will be geo-referenced with the help of GCPs and High-Resolution Satellite Imagery (HRSI).</p>	<p>Digitization (vectorisation) of current / serving Cadastral Maps / Musavis;</p> <p>a) Agency will provide the current musavis and RoR data and vendor agency will scan the musavis and update the same assisted by the concerned Patwari. The vendor agency will carry out digitisation (in defined time frame strictly). Digitized musavis will be geo-referenced with the help of GCPs and High-Resolution Ortho-rectified Satellite Imagery (HRSI). Thereafter, up-dation of map data and RoR will be carried out as per Clause 17.2.5. The day, that data (Spatial and Non-Spatial) is verified and accepted by the Agency, will be the cut-off date for up-dation of cadastral map and related RoR data of the concerned village.</p>
4.	Page No. 36, Clause 17.1.1	<p>c) The property dimensions and area should be shown in the metric system as well as traditional system.</p>	<p>c) Provision to be made to show the property dimensions and area in the metric system as well as traditional system as per requirement.</p>

5.	Page-38 17.1.2	iv-Final data set and ink plot on polyester paper for one to one checking of 100% data with original manuscript	iv- One ink plot on 170 gsm paper after one to one checking of 100% data with original manuscript and another print on 100 GSM paper for reference in field during Survey and Re-Survey. Refer point 3.2 of Financial Bid Format.
6.	Page 40 Clause 17.2 (b)	b) High Resolution Satellite Imagery (HRSI) and ground truthing by ETS and DGPS. The Agency will procure stereo HRSI (50 cm resolution) which will be further processed and geo-referenced for use by the Vendor. Feature extraction followed by ground truthing may be tried in plain area, however, for hilly areas imagery will be used as reference only and ETS Survey will be carried out.	b) High Resolution Satellite Imagery (HRSI) The Agency will procure Ortho-rectified satellite imagery of best possible resolution along with DEM data, if available. The GCPs established using DGPS will be post pointed on the imagery to improve accuracy of geo-referencing for better registration of maps prepared in the process of Survey / Re-Survey.
7.	Page 40 Point (iv) under Clause 17.2	Geo-referencing / Ortho-rectification of the satellite image.	Geo-referencing of ortho-rectified imagery by post pointing of GCPs for improving accuracy of registration of maps created after Survey / Re-Survey.
8.	Page No. 40, Clause 17.2.1	17.2.1 Specifications for the DGPS / ETS survey for Parcel updation , Ortho rectification of satellite image and Fixing of Sehada stone (village tri-junction pillars) i) Establishment of new Base control Bench Mark by using Dual Frequency DGPS observation for 72 hours. ii) Generation of Primary Grid of each 20 Km /Tehsil Head Quarter spacing with observation time of 20 hours at each point iii)Generation of Secondary Grid at 8 to 10 Km spacing with observation of 4 hours at each point iv) Territory points at a distance of 2 to 3 km spacing and monumentation of each Sehada stone at village boundary.	17.2.1 Specifications for the DGPS / ETS survey for Parcel updation and Fixing of Sehada stone (village tri-junction pillars) i) Generation of Primary Grid of each 16 x 16 Km / Tehsil Head Quarter spacing with observation time of 8 to 10 hours at each point. ii) Generation of Secondary Grid at 4 x 4 Km spacing with observation time of 4 to 6 hours at each point. iii) Tertiary points at a distance of 1 x 1 km spacing with 2 to 3 hours observation time and monumentation of each Sehada stone at village boundary. It may be noted that the lands under urban

			<p>settlements and the lands of forest department are not to be covered in the process of Survey / Re-Survey and therefore, GCPs are to be provided accordingly.</p> <p>The raw data of GPS observations in the native format and RINEX format needs to be delivered.</p>
9.	Page No. 40, Clause 17.2.2 Point b)	<p>The primary control points will be established by static GPS observation (72 hours) with dual frequency GPS receivers. The observed data of these control points needs to be post-processed with precise ephemeris adjusted with the help of Bernese s/w to the ITRF co-ordinate system. All the secondary and tertiary control points should be connected to the primary control points of the SoI, to ensure connection to the National Framework. Every primary control point should be fixed by observing two masters and one rover in triangle. The loop closures of triangle should be less than 3cm.</p>	<p>The primary control points will be established by static GPS with 8 to 10 hours observation time with dual frequency GPS receivers. The observed data of these control points needs to be post-processed with precise ephemeris adjusted with the help of appropriate s/w to the ITRF co-ordinate system and the RMSE as determined by the residuals of the network adjustment with 95% confidence interval should be within 5 cm. All the secondary and tertiary control points should be connected to the primary control points of Survey of India to ensure connection to the National Framework. Every primary control point should be fixed by observing two masters and one rover in triangle.</p>
10.	Page No. 40 Clause 17.2.2 Point (i) dd	<p>Accuracy levels required: 1 cm as determined by the residuals of the network adjustment with 95% confidence interval</p>	<p>Accuracy levels required: All GCPs shall be connected to the National Grid Reference System and GCPs will be measured within the accuracy standard of 5 mm ± 0.5 PPM with reference to nearest SOI control points).</p>
11.	Page No. 41 Clause 17.2.2 Point (d) (ff)	<p>(ff) Schedule of observations: Observations should be scheduled with proper mission planning, considering the optimum availability and Geometric Dilution of</p>	<p>(ff) Schedule of observations: Observations for Secondary GCPs should be scheduled with proper mission planning, considering the</p>

		Precision (GDOP) of satellites less than 3 (i.e., geometric strength of satellite configuration on GPS accuracy). Minimum observation time should be 3 hours.	optimum availability and Geometric Dilution of Precision (GDOP) of satellites less than 3 (i.e., geometric strength of satellite configuration on GPS accuracy). Observation time should be 4 to 6 hours.
12.	Page No. 42 Clause 17.2.2	Schedule of observations: Observations should be carried out with proper mission planning. Minimum observation time should be 45 min to 1 hour.	Schedule of observations: Observations for Tertiary GCPs should be carried out with proper mission planning. Observation time should be 2 to 3 hours.
13.	Page No. 43 Clause 17.3	17.3 Registration of Village digital (vectorised) data using GCPs The Village data to be superimposed over the geo-referenced satellite image for the updation of the land parcels and identification of the parcels under encroachment. The DGPS survey will be conducted for the ortho-rectification of the high resolution satellite image.	17.3 Registration of Village digital (vectorised) data using GCPs The Village data to be superimposed over the geo-referenced ortho-rectified satellite image for updation of the land parcels and identification of the encroachments.
14.	Page 44, Clause 17.7	The scope will include scanning, indexing and lamination of hardcopies of the following works:	The scope will include scanning and indexing of hardcopies of the following works:
15.	Page 46 Clause 17.7	Storage of the scanned copies of the records in the Server and making them available to the server based digital document management system software for easy retrieval. Perform lamination of documents specified by the Agency. Physical arrangement of all of the hard copies available with the Agency in the map cabinets, compactors and	Storage of the scanned copies of the records in the Server and making them available to the server based digital document management system software (part of Web-based Enterprise GIS) for easy retrieval. Physical arrangement of all of the hard copies available with the Agency in the map cabinets, compactors and racks as per the series and sequence proposed. The maps are to be stored in such a way that

		<p>racks as per the series and sequence proposed. The cloth bound maps are to be stored in such a way that there is a “moisture blotting paper” in between the maps. The blotting papers also need to be supplied by the bidder.</p>	<p>there is a “moisture blotting paper” in between the maps. The blotting papers also need to be supplied by the bidder.</p>
16.	<p>Page 58 Clause 18 (vii)</p>	<p>c. The printouts in 3 copies on required photo paper has to be provided on 1:1 scale in the following manner:</p> <ul style="list-style-type: none"> ○ First printout of scanned Original map on 75 micron transparency for validation, ○ Second printout of draft digitized musavis corrected and updated from Original musavis at 75 micron transparency. ○ Vendor may have to print more numbers till final corrections. ○ Third printout of final updated and verified digitized musavis in 3 copies on (as per prescribed sample) of 90 micron matt polyester paper. <p>d. Scanned final maps with complete indexing on CD media.</p> <p>e. Digitized maps should be linked with RoR which is already computerized and available in Client Server.</p> <p>f. Final output should run on Systems of land records computerisation to be developed and made operational at State / District headquarters of Jammu & Kashmir. It should be made operational at all the Tehsil headquarters of Jammu and Srinagar districts of the state, to begin with and the process will be replicated in all other districts for which the work will be awarded on the same rates, if work found satisfactory and on vendor’s consent.</p>	<p>c. The printouts on 1:1 scale on specified media have to be provided in the following manner for validation / checking:</p> <ul style="list-style-type: none"> ○ One printout of scanned Original map on 90 GSM paper for validation (Glass Table to be used for one to one checking) ○ One printout of draft digitized (vectorised) musavi, on 90 GSM paper for validation. ○ Vendor may have to print more numbers till final corrections. ○ Two prints of final digitized musavi, one print on 170 GSM paper and another on 100 GSM paper for use in field during Survey / Re-survey (also refer point 3.2 of Financial Bid Format). <p>d. Scanned final maps with complete indexing on CD media.</p> <p>e. Digitized maps should be linked with RoR which is already computerized and available in Client Server.</p> <p>f. Final output should run on Systems of land records computerisation to be developed and made operational at State / District headquarters of Jammu & Kashmir. It should be made operational at all the Tehsil headquarters of Jammu and Srinagar districts of the state, to begin with and the process will be replicated in</p>

			all other districts for which the work will be awarded on the same terms and conditions, if work found satisfactory and on vendor's consent.
17.	Page 73 Annexure III Point No. 2.5	Full colour printing of all the scanned maps as per 4.2 above on 170 GSM paper with lamination (after seal of authentication) – 2Sets (original scale)	Full colour printing of all the scanned maps as per 17.7 above on 170 GSM paper – 2 Sets (original scale)
18.	Page 73 Annexure III Point No. 3.2	Printing of each original Musavi sheet on 170 GSM paper / 75 micron polyester matt film on 1:1000 Scale for reference in field, during survey/resurvey	Printing of each original Musavi sheet after digitisation (vectorisation) on 100 GSM paper on 1:1 scale for one-to-one checking. Thereafter, one print on 170 GSM paper of corrected musavi and second print on 100 GSM paper for reference in field, during Survey / Re-Survey.
19.	Page 73 Annexure III Point No. 4.1	Data Entry of all updated Jamabandi / RoR and other Textual data as per prescribed coding scheme and structure.	Data Entry of all updated Jamabandi / RoR and other Textual data as per prescribed coding scheme and structure. Non-Spatial (RoR data etc.) data is to be delivered in MS Access format (latest version for databases).
20.	Page 73 Annexure III Point No. 5.1	Establishment of Ground Control Points (GCPs) for Survey / Re-Survey, processing and Geo-referencing of High Resolution Satellite imagery (stereo) . The GCPs should be established on each and every Sehada stone and one or two Locations within village/musavi boundary, at least two GCPs in every village should be inter-visible. The GCPs network should be established using dual frequency DGPS as per technical guidance in ToR across the State.	Establishment of Ground Control Points (GCPs) for Survey / Re-Survey, Geo-referencing of High Resolution Ortho-rectified Satellite imagery for improving accuracy . The GCPs should be established on each and every Sehada stone and one or two Locations within village/musavi boundary, at least two GCPs in every village should be inter-visible. The GCPs network should be established using dual frequency DGPS as per technical guidance in ToR across the State.

21.	Page 74 Annexure III Point No. 5.3	Satellite data preparation/ processing (Stereo Imagery of approx 50cm resolution) as per ToR requirement and geo-referencing (a) including extraction of details, such as, parcel boundaries (village-wise) to serve as Chuminda or may be used for ground truthing. (b) Without feature extraction. The Geo-referenced imagery in this case will be used for reference and preparing mosaics with imagery as base.	Satellite data preparation as per ToR requirement and geo-referencing (a) including processing of HRSI (stereo) for creation of ortho-rectified images, extraction of details, such as, parcel boundaries (village-wise) to serve as Chuminda or may be used for ground truthing. (b) Without feature extraction. The ortho-rectified geo-referenced imagery will be used for reference and preparing mosaics by overlaying updated maps over this imagery after validation and acceptance. <i>(Please see Note (5) at the end of FINANCIAL BID FORMAT – ANNEXURE III.)</i>
22.	Page 74 Annexure III Point No. 5.4	Overlaying of digitized (Vectorised) Musavis Data on Geo-referenced imagery.	Overlaying of digitized (vectorised) musavis data on geo-referenced ortho-rectified imagery for loading on the ETS.
23.	Page 75 Annexure III Point No. 5.9	Printing of each final Musavi sheet after verification on 75 micron polyester matt film on 1:1000 Scale (including those villages where fresh survey will be carried out)	Printing of each final Musavi sheet in two copies after verification / validation, on 1:1000 Scale, one copy on 100 micron polyester matt film and second copy on 170 GSM paper (including those villages where fresh survey will be carried out).

INSERTIONS TO BE MADE :

i) To be inserted at the end of Clause 17.4

(d) Pedigree tables also need to be created in respect of all villages.

ii) To be inserted at page 46, under Clause 17.8 after second bullet :

- Average number of transactions can be estimated from Table 1 and Table 2 below. Moreover, it is to be noted that the state is divided into two Divisions, further into 22 districts, 66 Sub-Divisions headed by SDMs, 266 Tehsils, 652 Niabats, 1714 Patwar Circles and has 7050 villages. The number of users and concurrent users, with reasonable cushions, have to be estimated accordingly during software development.

Table 1 : Progress of attestation of mutations during January, February and March 2014 in Jammu, Kathua, Srinagar and Budgam districts of J&K

District	Jan 2014 Pending Mutations/ Attestations	Feb 2014 Pending Mutations/ Attestations	Mar 2014 Pending Mutations/ Attestations	Total	Percentage
Jammu	2527 / 1025	2724 / 1263	2152 / 864	7393 / 3152	42.63
Kathua	566 / 278	602 / 278	498 / 191	1666 / 747	44.83
Srinagar	517 / 517	240 / 240	148 / 148	905 / 905	100
Budgam	1123 / 174	1149 / 232	1064 / 176	3336 / 582	17.44

Table 2 : Details of Sale Deeds registered in Jammu, RS Pura, Bishnah and Akhnoor Tehsils during November 2014

Tehsil	Number of Sale deeds
Jammu	307
RS Pura	57
Bishnah	61
Akhnoor	55

iii) To be inserted at the end of FINANCIAL BID FORMAT (Annexure III) under Notes

- (5) For arriving at the Bid Value Amount, the bidders quoted price for 5.3 (b) will only be taken in the instant case as the Agency will procure Ortho-rectified HRSI along with corresponding DEM data, if available.
- (6) The rates quoted at 5.7 above will not be included in the Bid Value.

iv) To be inserted as Clause 3.1.1 in Annexure X (Draft Service Level Agreement)

3.1.1 Cut-off date for updation of Cadastral Maps and the RoR data

Agency will provide the current musavis and RoR data and vendor agency will scan the musavis and update the same assisted by the Patwari. The vendor agency will carry out digitisation (in defined time frame strictly). Digitized musavis will be geo-referenced with the help of GCPs and High-Resolution Satellite Imagery (HRSI). Thereafter, up-dation of map data and RoR will be carried out as per Clause 17.2.5. The day that data (Spatial and Non-Spatial) is verified and accepted by the Agency, that will be the cut-off date for up-dation of cadastral map and related RoR data of the concerned village.