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WRITING SYSTEMS AND GUIDES TO PRONUNCIATION: ROMANIZATION

Standardization of geographical names in India - Adoption
of modified table of transliteration from Devanagari to Roman *

Paper submitted by the Ad Hoc Chairman of the Working Group
on Romanization of the UNGEGN

STANDARDISATION OF GEOGRAPHICAL NAMES IN INDIA - ADOPTION OF MODIFIED TABLE OF TRANSLITERATION FROM DEVANĀGARI TO ROMAN

by

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INTRODUCTION:

Devanāgari is the script of Hindi language used in India. Out of all the Indian languages prevalent in the country, Hindi is understood and spoken by most of our people, and it is for this reason, that the Constitution of India has adopted Hindi written in Devanāgari script as the official language of the country. English which has been in use since the advent of Britishers has been given the status of second official language, and is also used concurrently.

As far as cartography goes, since 1767 when Lord Clive appointed Major James Rennel, as the First Surveyor General of Bengal, the maps produced by the Survey of India (the National Surveying and Mapping Organisation) have been in the English language, and these have continued even after independence in 1947, and in fact, the great majority of our maps are still being produced in English. Hindi Editions of some of our General Maps, such as the Political Map of India, the Railway Map of India, the Physical Map, and the India & Adjacent Countries Map have also been brought out, but the Topographical Maps on 1:250,000/1:50,000 scale, and on 1:25,000 scale (which has now been adopted as the basic scale for mapping the country) are still being produced in English. An experiment has been made to bring out Hindi Edition of a few topo sheets, and 3 such sheets - 1 on 1:50,000 and 2 on 1:25,000 scale, which were processed under the guidance of the author, are at present under printing action. One such sheet was earlier brought out under the guidance of Col.D.N.Sharma. The symbol tables, the special foot-notes, the headings, the Surveyor General's Imprint, and all other details in the margins and in the borders, are in Hindi. The Geographical Names appearing in the sheets are the Devanāgari versions of the Names. It is hoped that after approval of the Hindi Terminology adopted in these sheets, the printing of Topo maps in Hindi will be taken up in a big way.

HUNTERIAN SYSTEM OF TRANSLITERATION:

In order to transliterate the Indian Names into Roman, the table in vogue in the Survey of India, is called Hunterian system of Transliteration, after Dr. W.W.Hunter of Bengal Civil Service who proposed this table, and which was adopted by the Government of India with a few minor modifications in the year 1870. However, a number of Names continued to have anglicised spellings, and, in fact, the same are still being used. Although
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the instructions exist that all the Names should be correctly
transliterated into Roman by the use of Hunterian system and
corrected where necessary (by following the prescribed procedure
in case of Imperial Gazetteer Names), yet the progress has been
rather slow. A few of the District Names not conforming to
Hunterian System of Transliteration are shown in Annexure I. The
correct spellings as per Hunterian system have also been given in
one column, based on the Devanāgari version of the Names.

DEFECTS IN THE HUNTERIAN SYSTEM:

The existing Hunterian system (which served the purpose
of Britishers fairly well) does not, however, meet the present
needs of the country as, under this System, one cannot
differentiate between say, ' दाँत ' and ' डाँट ' having different
meanings, but which would both get Romanised as 'DĀNT'. The
Hunterian System does not distinguish between different phonetic
consonants, such as ' त ' & ' ट ', which are both transliterated
by 'T'; the ' द ' & ' ड ', which are both transliterated by 'D';
' र ' & ' ड़ ', which are both transliterated by 'R'; the ' थ '
& ' ठ ', which are both transliterated by 'TH'; ' ध ' & ' ढ '
which are both transliterated by 'DH', and ' घ ' & ' ग़ ' which are
both transliterated by 'GH'. Similarly, it does not allow a
macron being used over the last vowel, and thus the distinction
between say, ' आदि ' and ' आदी ' which have different meanings,
cannot be brought out, as both get transliterated as 'Ādi'. All
this leads to confusion as the different phonetic sounds in the
Indian languages convey different meanings, and the pairs of
words ' रेती ' & ' रेटी ', ' कया ' & ' खड़ा ', ' देश ' & ' डग '. etc. would get
transliterated the same way.

Further, the existing system provides for direct
transliteration from two scripts, namely, Devanāgari and Urdu to
the Roman script. This leads to rendering of different spellings
of the same Name, such as Patiyāla when transliterated from
Devanāgari and Patiyālah when transliterated from Urdu. It has,
therefore, been proposed that after the Name has been
standardised in the local script, it should then be transcribed
to Devanāgari script as it is actually pronounced (by the use of
'Mātras' (vowels) and 'Halants' etc), and, thereafter, the Names
should be systematically transliterated to Roman by use of the
proposed Modified Table of Transliteration, to bring out these
distinct, and significant differences in phonetic sounds of all
Geographical Names in India. The Modified Transliteration Table
proposed by the Author is appearing as Annexure II.

ESSENTIAL REQUIREMENTS FOR THE MODIFIED TABLE OF TRANSLITERATION:

The considerations which the author has kept in mind
for suggesting the Modified Table of Transliteration, are as
under:-

i) The Table should be unambiguous and should not be open
to different interpretations. As such, only letter for
letter transliteration has been suggested. In the
existing Hunterian system, one letter sometimes

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corresponds to two different letters, such as 't' both for ' त ' and ' ट ', etc. One to one correspondence is also essential, if computer techniques are to be used in field and office processing of Names, and for publication of Gazetteers of Names, with facility for sorting and arrangement of Names in any desired manner.

ii) All the important phonemes which are distinctly distinguishable to the ear, prevalent in the various Indian languages in the country should be catered, and corresponding letters in Devanāgari and Roman provided for, with the use of diacritical marks, as necessary.

iii) The system should be easy to understand and simple to apply, keeping in view that the Names have to be picked up and processed by the Surveyors, who may not be linguistic experts. However, a working knowledge of Hindi (the official language of our country) and of English, by the Surveyors, may be assumed.

iv) The system to be devised should be a natural extension of the existing Hunterian System, easy to fit in, rather than a sudden departure from it, as the existing system has been in vogue for printing of maps published by the Survey of India, for long. The idea is to learn a little more or add to the existing practice and learning, rather than unlearn something and relearn an altogether a new or alien System/Table.

v) The system should be such that it can be adopted with relative ease in printing not only of maps but also of books, records, publications, sign-boards, Name-plates, directories, and in typewriters/teleprinters, etc.

vi) Since it would be necessary to cater to the map user who may not have time or inclination to go into linguistic niceties, the transliteration table should be relatively simple and easy to follow.

vii) The system should be scientific, fairly comprehensive, and consistent. It should also be reversible, in the sense that the Roman spelling derived from Devanāgari spelling when transliterated back to Devanāgari, should result in the original Devanāgari spellings.

viii) Though the diacritic marks with Roman letters cannot be avoided for brevity (there are many more distinct phonemes in Devanāgari and other Indian languages than the letters and combinations of letters of the English Alphabet), yet these should be kept to the minimum.

ix) As far as possible, the diacritic marks should be such that even if they get inadvertantly omitted in printing, the pronunciation of the Name should not get distorted too much out of its original pronunciation.

CENTRAL GOVERNMENT INSTRUCTIONS:

The Government of India have issued instructions, that no Names should be changed for sentimental or patriotic reasons, as the Names invariably have a certain local history, association, and phonetic richness of their own. However, anglicised versions must be altered to conform to their correct Names as locally pronounced, and as per official records in the script of their origin. There should be no sentimental attachment to the wrong Roman spellings of some of our Names which might be found printed on our maps, as it is important that the correct authentic versions as per the accepted system of transliteration, should be adopted and standardised for use for all time to come. If spellings of Names 'Peking' and 'Dacca' can be corrected to 'Beijing' and 'Dhaka' respectively, there is no reason why we should not do so for our Names. The method followed in the Survey of India has been that the Name is picked up by the surveyor on the ground, and he also gets the Name written by local official (who may be a revenue official or a village headman or any other literate person available on the ground). Names are also got verified by the Tehsildar. The Name is also to be written by the Camp Officer in the Devanāgari script and in the Roman script on a prescribed form 22(Topo). Later, in the office, the Name is finally examined alongwith the Roman version of the Name, as it appears on the previous published maps, and the Officer-in-Charge of the Survey Party decides on the Roman spellings to be printed on the map to be brought out.

NAME GAZETTEER FOR SOLAN DISTRICT - REVISED METHOD FOR PICKING UP OF NAMES:

An exercise for bringing out the Gazetteer of Names, was carried out for Solan district of Himachal Pradesh, a State of the Indian Union. The detailed study brought out that it was imperative that the Names should get standardised once and for all, in the Devanāgari script by active participation of the Revenue officials and the State Name Authority. Since the State Government has adopted Hindi in Devanāgari script as its official language, reference to another Indian language script was obviated. It was observed that the correct and authentic Devanāgari spellings for any particular Name which appeared on the map in Roman, were difficult to arrive at from available records (form 22(Topo) etc.). A team of two Surveyors was therefore, sent to each Tehsil (administrative partition of a district) of the district, where they alongwith the officials of the Tehsil consulted the Revenue maps and records, and noted down the correct Names in Devanāgari script, which in many cases did not tally with the spellings in Roman as appearing on the published map. A manuscript of the Gazetteer has been prepared, which has a column, in which the Name as it appears in Roman on the latest published map has been entered. The Name in Devanāgari as it is found in records and which is verified as the correct Name, has also been entered in the appropriate column.

In a number of cases, it was found that the tehsildar's list did not have any record of Names of villages, other than Revenue villages. There were about 7000 villages/hamlets in the district, whereas the official records with the tehsildars had Names of only 2515 villages. However, the Names of the remaining villages were also available with the 'Patwaris' (the lowest revenue functionary at the village level), written on their maps. As such, the following method is suggested for picking up of Names, and their processing, in lieu of the existing method of picking up of Names on form 22(Topo), which should be dispensed with, as it leads to numerous discrepancies.

The Names should be collected from the office of the Tehsildar, and all the lists available with him should also be collected and consulted. The Names not available with the Tehsildar should be taken from the Patwari. The need for correct spellings with all the 'Mātras' and 'Halant' must be emphasized on the Revenue Officials, to enable faithful rendering of the correct Name, as it is spoken and written. The Roman spelling of .ɪ˙.s as appearing on the latest published map should be kept for a mere reference. It is this Name supplied by the Revenue official which should now be transcribed phonetically as faithfully as possible to Devanāgari, and finally transliterated to Roman. In case a Name as pronounced by the Patwari happens to differ from the Name which is available in his Records, then the Name as pronounced could be put in the brackets. In certain cases, a visit to the village may be necessary for removing any doubts. In fact, the Name in record should ultimately be corrected so that it tallies with the Name as actually known and pronounced, on the ground. If both the Names are, however, applicable and are being used in a particular case, there is no harm if both are continued. This method of ascertaining of the correct Name in the local script (which is in fact the STARTING POINT for standardisation of Names) will obviate the need to pick-up Names again, whenever fresh survey in the area is undertaken, and would remove the confusion sometimes caused by Names of the same entity appearing with different spellings on different Editions.

WRITING THE NAME IN MODIFIED DEVANĀGARI BEFORE TRANSLITERATION:

In order to bring out the pronunciation correctly the Names must be written in Devanāgari script, absolutely correctly as they are actually pronounced and whenever a full consonant is not pronounced as it is, a 'Halant' sign indicating that it is a half consonant must be used. All the 'Mātras' (vowel signs) in Devanāgari must be correctly and meticulously used. Nasal sounds should be invariably expressed by the use of 'Bindu' (a dot over the letter). For example the Name ' रामपुर ', if so pronouced should be written as ' राम्पुर ' before transliteration and then transliterated 'Rāmpur', otherwise it would be transliterated 'Rāmapura'. Similarly the Name ' पच्चा ' should first be written ' पंचा ' and should be transliterated 'pañchā'. Similarly 'रङ्गमा' should be written as ' रंगमा ', and then transliterated as 'Raṅgamā'.

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COURSES IN TOPONYMY:

It is important that basic and relevant training in Toponymy should be imparted to the Surveyors, so that the correct way of writing the Names and their accurate transliteration, are fully understood. The importance of this work cannot be over-emphasized, as the Names once standardised will be used for all time to come, and the tendency to accept the existing spellings in Roman without proper verification must be curbed. It will be understood that it is the Name in the local script that is the origin of any Geographical Name, and it is this Name which should be carefully transcribed into Devanagari script, and, thereafter, the Name should be transliterated into Roman. The system of transliteration should be scientific.and impersonal, and the macron for long vowel sound must be used, wherever they occur including the vowel at the end of a Name, to make the pronunciation free from any ambiguity.

It is also important that the Transliteration Table for pronunciation is suitably explained on each map, as in a dictionary, as otherwise the Names may be pronounced wrongly, as English words. There is also need for exposing the students to basics of Toponymy, to enable them to read the Names appearing on a map, correctly.

DIACRITICAL MARKS:

The diacritical marks to be used on our Names should create no problems in printing. A number of maps printed in French, German, etc. do have such marks – dots and other diacritical marks, over some letters of their Alphabets, and it should not be difficult for us too, to introduce the diacritical marks, a dot and a line (macron), as proposed in the new Table. In fact, the macron is already in use.

INTERNATIONAL ROMANISATION SYSTEM:

The need for an International Romanisation System, to make the maps universally readable, has been fully established. It will be necessary to adopt a scientific and comprehensive phonetic script, so that all the Names which are prevalent in different countries are first written in that script, in which all the phonemes (distinctly clear to the ear) can be correctly written. It is suggested that Devanagari script may be adopted for the purpose, and such of the phonemes which are not available in the present script could be easily introduced. This is a truly phonetic script, with the phonemes classified and arranged linguistically. One writes what is actually pronounced, and pronounces what is written, there being no silent letters. After the Name is written in Devanagari script from the phonetic rendering of the Name (whatever be its language or script of origin), the transliteration from Devanagari to Roman would be a simple matter through the application of Transliteration Table proposed by the author which could be enlarged so as also to include the phonemes not used in Indian Languages. In fact, the

computer techniques could be used for the purpose, and the work greatly facilitated, as demonstrated by the author in his Paper, 'Automation in Processing of Geographical Names - An Experiment', in September, 1983.

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EXAMPLES OF SOME DISTRICT NAMES WITH DISCREPANT SPELLINGS IN

DEVANĀGARI AND ROMAN AS PER HUNTERIAN SYSTEM OF TRANSLITERATION

Name in Roman script on Political Map 1st Edn. 1979 – Scale 1:4 M	Name in Devanāgari script on Political Map of India, 3rd Edn. 1979 – Scale 1:4.5 M	Transliteration of Name in Devanāgari in column 2, as per Hunterian System.
1.	2.	3.
JAMMU AND KASHMĪR		
Pūnch	पुंछ	PUNCHH
HIMĀCHAL PRADESH		
Kyelang	केलंग	KELANG
MAHĀRĀSHTRA		
Bombay	मुम्बई	MUMBAI
KARNĀTAKA		
Hassan	हासना	HĀSANA
Bangalore	बेंगलूरु	BENGALŪRU
Mangalore	मंगलूरु	MANGALŪRU
KERALA		
Cannanore	कण्णूर	KANNŪR
Mahe	मय्यलि	MAYYALI
Alleppey	आलपुला	ĀLAPPULA
Quilon	कोल्लम	KOLLAM
Trivandrum	तिरुवनंतपुरम	TIRUVANANTAPURAM

1.	2.	3.
TAMIL NĀDU		
Vellore	वेल्लूर	VELŪR
Salem	सैलम्	SELAM
Cuddalore	कड्लूर	KADLŪR
GOA, DAMĀN AND DIU		
Silvassa	रौलवास	SELVĀS
ANDHRA PRADESH		
Cuddapah	कड्पा	KADAPA
Nellore	नैल्लूरू	NELLŪRU
Chittoor	चित्तूरू	CHITTŪRU
ORISSA		
Cuttack	कटक	KATAK
MADHYA PRADESH		
Indore	इंदौर	INDAUR
UTTAR PRADESH		
Meerut	मेरठ	MERATH
Bareilly	बरैली	BARELI
Lucknow	लखनऊ	LAKHNAU
SIKKIM		
Gangtok	गांतोक	GĀNTOK
WEST BENGAL		
Calcutta	कलिकाता	KALIKĀTA

*Modified Survey of India Transliteration Table from Devanāgari to Roman

Devanāgari	Roman	Pronunciation
अ	a	Sound of 'u' in cut.
आ, ा	ā	Sound of 'a' in father.
इ, ि	i	Sound of 'i' in bit.
ई, ी	ī	Sound of 'ee' in keen.
उ, ु	u	Sound of 'u' in put.
ऊ, ू	ū	Sound of 'oo' in root.
ए, े **	e	Sound of 'e' in pen, pet.
ऐ, ै	ē	Sound of 'ai' in rain.
ऐ ै	ai	Sound of 'a' in angle.

**The new letter suggested in the Devanāgari Script approved by the C

Hindi Directorate, Govt of India.

*Suggested by . Mr. G.S. Oheroi, Director, Survey of India. in lieu of tl

existing table 'Hunterian System of transliteration' which does not distingu

between द & . ड : र & ड़ : त and ट etc.,and has many

other shortcomings, and is unsuitable for use on the Computer.

आ, ा**	o	Sound of 'o' in oblige.
ओ, ो	ō	Sound of 'o' in only.
औ, ौ	au	Sound of 'ow' in cow.
क	ka	Sound of 'k' in kit.
क़**	qa	Sound of 'q' in quail.
ख	kha	Sound of 'kh' in *khaddar.*
ख़	k̤ha	Sound of 'kh' in *Khaki.*
ग	ga	Sound of 'g' in get.
ग़	g̣a	Sound of 'gh' in *Ghazni.*
घ	gha	Sound of 'gh' in ghost.
ङ	ṅa	Nasal sound in Ring.
च	cha	Sound of 'ch' in chit.
छ	chha	Sound of 'chh' in *chhatri.*
ज	ja	Sound of 'j' in jam.
ज़	za	Sound of 'z' in zebra.
झ	jha	Sound of 'jh' in *Jhansi.*

ङ	ṅa	Nasal sound in Ring.
ट	ṭa	Sound of 't' in tap.
ठ	ṭha	Sound of 'th' in *Pathan*.
ड	ḍa	Sound of 'd' in dim.
ड़	ṛa	Guttural 'ḍa'.
ढ	ḍha	Sound of 'dh' in birdhouse rather quickly.
ढ़	ṛha	Aspirated 'ṛa'
ण	ṇa	Sound of 'n' in grunt.
त	ta	Sound of 't' in French cat
थ	tha	Sound of 'th' in thing.
द	da	Sound of 'th' in them.
ध	dha	Sound of 'dh' in *dhobi*.
न	na	Sound of 'n' in nice.
प	pa	Sound of 'p' in pen.
फ	pha	Sound of 'ph' in upholc rather quickly.
फ़	fa	Sound of 'f' in fat.

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ब	ba	Sound of 'b' in bit.
भं	bha	Sound of 'bh' in *Bharat*.
म	ma	Sound of 'm' in mat.
य	ya	Sound of 'y' in yoke.
र	ra	Sound of 'r' in ran.
ल	la	Sound of 'l' in light.
ळ	ḷa	Sound of 'l' in *Tamil*
व	va	Sound of 'v' in very.
श	sha	Sound of 'sh' in shy.
स	sa	Sound of 's' in sun
ह	ha	Sound of 'h' in hat.
	ṅ	Nasul sound in Ring.

या ' ँ ' या ड़ः या अ

क्ष	ksha	Sound of 'xiou' in obnox
त्र	tra	Sound of 'tr' in *Chitraku*
विसर्ग ' : '	h	Half sound of ah!

No distinction is sought to be maintained for the purpose of Geographical names between श and ष or between अ, ड, ' ' and ' '

It will be appreciated that any Devanāgari Consonant such as क stands for क् + अ, that is, the short 'a' sound is always understo

When the short 'a' sound is not to be pronounced, 'halant' ought to be used for correct transliteration, as in 'स्वागतम्', where 'म' has 'h; sign attached to it.