## Proposal to encode Tolong Siki in Unicode

Anshuman Pandey

pandey@umich.edu
pandey.github.io/unicode

January 5, 2023

### **1** Introduction

Tolong Siki is an alphabet used for writing Kurukh (ISO 639-3: kru), a Dravidian language spoken by 2.28 million persons in India, primarily in the states of Jharkhand, Bihar, and West Bengal. It was invented in 1988 by Dr. Narayan Oraon of Gumla district, Jharkhand. The script was developed over the years in collaboration with Francis Ekka, the former director of the Central Institute of Indian Languages (CIIL), Mysore; Padma Shri Ram Dayal Munda, the former Vice Chancellor of Ranchi University; and Dr. Nirmal Minz, founder principal, Gossner College, Ranchi. Tolong Siki was formally published on May 15, 1999.

In 2010, I submitted "Preliminary Proposal to Encode the Tolong Siki Script in the UCS" (N3811 L2/10-106) to the Unicode Technical Committee. At that time, relatively little was known about Tolong Siki outside of the Kurukh community. So, the purpose of that document was to inform an international audience about the existence and usage of Tolong Siki. It was not a formal request to include the script in The Unicode Standard. Also, as Tolong Siki is a newly-invented script, there was a need to measure the suitability of including the script in Unicode. Tolong Siki is one of more than twenty scripts that have been invented in the past thiry years. Some of these scripts are used today, while many are not. Also, those in use have display varying degrees of the following attributes that help to determine suitability of encoding a script in Unicode: stability of the script and character repertoire; acceptance by the user community; usage in publications; technological development; and institutional support or official recognition.

I have monitored the usage and development of Tolong Siki over the past twelve years. The script's creator, Narayan Oraon, has provided updates through the years. I have been contacted regarding the status of Tolong Siki in Unicode by numerous members of the user community, among whom Ashwin Kumar Kispotta has provided me with substantial document of the script. Based on this information, it is clear today that Tolong Siki has achieved the aforementioned criteria.

1. *Stability* Tolong Siki has remained highly stable in its structure and basic repertoire from the time of its official release in 1999. The vowel and consonant letters, as well as digits, are unchanged in both inventory, semantics, and form. Latin punctuation continue to be used. Changes have been made to the set of diacritics signs, namely the addition of new signs that extend the ability of the script to represent new sounds.

- 2. *Acceptance* The script is very much alive and enjoys increasing usage within the Kurukh-speaking communities in India. It is taught to Kurukh speakers in primary schools, cultural organizations, and through community publications.
- 3. *Development* Two digitized fonts are available for Tolong Siki. "Singi Dai" was designed by Nemhas Ekka of Lohardaga district, Jharkhand and released in March 2007. The second, "Kelly Tolong" was designed by Kislaya IT Services (KITS) and released in April 2007. The "Kelly Tolong" font is used in this proposal, and is the font used in the *Kurukh Times* and most books.
- 4. *Publications* Primers for the script have been published both by community organizations and state education boards, and in different languages. Various Kurukh-Hindi primers have been published by Narayan Oraon (see figs. 1-3 for excerpts from a primer from 2021) A Kurukh-Bengali primer was published in 2016 by Mahesh Minz (see figs. 12–13). A newsletter called the *Kurukh Times* is published regularly (see fig 9, 10). The script is used on covers of books (see fig. 14).
- 5. *Institutional Support* The Tribal Cultural Society, a philanthropic organization of the Tata Steel Foundation, provides support for publications in Tolong Siki (see book covers in fig. 14).
- 6. Official Recognition Tolong Siki has received formal recognition in several states as one of the official scripts for the Kurukh language (see, for example, the reference in fig. 6). On April 3, 2007, it was recognized as the formal script for Kurukh by the government of Jharkhand (*The Telegraph* 2007). In 2009, the state of Jharkhand permitted usage of the script for secondary school examinations (see fig. 7). In February 2016, Jharkhand granted permission for the script to be used for writing university examinations (see fig. 8). In 2017, the government of West Bengal recognized Tolong Siki as an official script for Kurukh (*The Hindu* 2017).

Accordingly, this document is a formal proposal to include Tolong Siki in The Unicode Standard. Given the stability of the script, the core repertoire presented in  $L^2/10-106$  remains unchanged. Major changes to the proposed encoding include:

- Inclusion in the repertoire of the auspicious sign **W** *ũggu*
- Documentation of additional diacritics used for modifying consonant and vowel sounds
- Unification of Tolong Siki diacritics with common combining signs already encoded in Unicode

### 2 The Script

Tolong Siki (**67B70 OPOP**) is an alphabetic, left-to-right script. It is an invented writing system, but it possesses structural and graphical features similar to other scripts that evolved organically from Brahmi.

There are 6 vowel letters (שומום האיש sarah tor):

₽	۷	3	ð	า	Π
i	е	и	0	а	ā

There are 35 consonants (ອາສາສ ຄຈະຮ harah tor):

U	ဖ	ಲ	ಅ	లు
р	ph	b	bh	т
റെ	ഒ	ູ	າວ	ಉ
t	th	d	dh	п
Ð	<b>6</b> 0		ወ	୭
ţ	ţh	<i>ḍ</i>	<i>d</i> h	ņ
ଜ	ଜ	ଜ	ଜ	ഩ
С	ch	j	jh	ñ
S	3	ω	ເອ	ຎ
<b>()</b> k	<b>Və</b> kh	<b>ຜ</b> g	<b>(9</b> gh	<b>ல</b> 'n
• •	•••	•••		
k	kh	g	gh	'n
k 5	kh 80	g B	gh ß	'n N

As per the chart in fig. 5, the letter **b** ha has the variant form **G**. But, that is no longer used.

The arrangement of the consonant repertoire into classes based on the points of articulation is based on the Brahmi pattern. However, the ordering of classes for the base consonant letters is reversed in Tolong Siki, such that the first class consists of letters representing labial sounds instead of velars as in the Brahmi model. Tolong Siki consonant letters are alphabetic, so they do not possess the inherent *a*.

There is a full set of decimal digits:



There is an auspicious sign, which is a letter-like character similar to om:

## **7U**

#### ũggu

Tolong Siki has several diacritics and special signs. The original set of signs is:



There are no script-specific signs of punctuation; conventional Latin signs are commonly used. In some cases, Devanagari danda-s are used as well.

•	,	•	!	?	-
gahala țuŗā	ucari țuŗā	micari țuŗā			pacha
full stop	comma	semi-colon	exclamation mark	question mark	hyphen

#### 2.1 Orthography

Vowel lengthening is indicated using :  $sel\bar{a}$  (alternately depicted as  $\hat{s}$ , see fig. 11), which is a letter-like mark placed after a vowel letter:

 P:
 V:
 3::
 7:
 1:
 1:

 /i:/
 /e:/
 /u:/
 /o:/
 /a:/
 /ā:/

The a /?/ glottal stop is indicated using the sign I, a vertical bar which was formerly called *talā*, but is now called *hecakā*. It is a letter-like mark placed after a vowel letter:

 PI
 VI
 βI
 δI
 II
 ΠI

 /i?/
 /e?/
 /u?/
 /o?/
 /e?/
 /ā:?/

Nasalization is indicated using  $\cdot$  *mitalā* and  $\tilde{\circ} ev\tilde{a}$ . The *mitalā* is used for indicating consonant nasals. This sign is synonymous with the class nasal letter of the following consonant. It is placed above the base letter. Below are examples of the same Kurukh word written with *mitalā* and with the respective class nasal:

ທ່າທ	ดขํล	ບາດ	ຍາ່ຄ
ທາ໙ທ	ଡ଼୳୬ଊ	വാന	ຍາຍຄ
/kaŋk/	/cent <sup>h</sup> /	/panc/	/menth/

Vowel nasalization was also marked using  $\dot{}$  *mitalā*. But, in 2015,  $\tilde{}$  *evā* was introduced specifically for this purpose. The *evā* is placed above a vowel letter. If there is another accompanying sign that is a spacing mark, such as c: *selā*, the *evā* is positioned above the base.

₹	ĩ€	ĩ	ĩ:	ĩ	¥:	õ	ĩ:	ĩ	ĩ:	Ĩ	ĩ١
/ĩ/	/ĩ:/	/ẽ/	/ẽ:/	/ũ/	/ũ:/	/õ/	/õ:/	/ã/	/ã:/	$/\tilde{\overline{a}}/$	/ã:/

The ' *ghetalā* indicates a syllable boundary within a word:

ບາຍອາມັດ /bannā/ /ban'nā/

The  $\check{o}$  *phavā* is used for representing English vowel sounds, such as /o/, semantically similar to the  $\check{o}$  U+0945 DEVANAGARI SIGN CANDRA E and  $\check{o}$  U+0949 DEVANAGARI SIGN CANDRA O:

#### ႞႞ၛၣၛ

/ofis/

Sounds not native to Kurukh are indicated using a variety of signs. There are two sets of these *nukta*-like signs, which are reflective of orthographic conventions of different phases in the development of Tolong Siki. Until 2015, the signs  $\circ$  *sulā*,  $\overline{\circ}$  *dugā*, and  $\circ$  *pugā* were used. The *sulā* is the common *nukta*, written beneath a letter to represent sounds in Sanskrit and Urdu words. The *dugā* and *pugā* are used for more specialized transcriptions. In 2015, a committee overseeing the development of Tolong Siki switched from  $\overline{\circ}$  *dugā* and  $\circ$  *pugā* to the signs  $\ddot{\circ}$  *ilā*, and  $\circ$  *uphā*, respectively.

Pre-2015	လဲ	ယ္	ભ઼	ଜ଼	ڣ	Ģ	ભં	ତ
Post-2015	ö	မ္မ	ଜ଼	ຕຼ	ဗ္မ	ចូ	ဖ်	ю
Value (Devanagari)	क़्	ग़्	क्ष्	ज़्	फ़्	व्	য্	ष्

Although **6** *r* intrinsically represents /r/, a syllable-final /r/ is also written using the below-base sign  $\gtrsim rev\tilde{a}$ . The *revã* is also another innovation introduced in 2015.

Ň	ຄຼ	ప్ల	õ	ЮЪ
/kr/	/tr/	/dr/	/ʃr/	/kri/
क्र्	স্	द्र्	स्र्	कृ / क्रि

### 3 Approach to Encoding Letter-Like Signs and Combining Signs

The fourteen letter-like and combining signs used throughout the different phases of the development of in Tolong Siki resemble characters that are already encoded in Unicode.

The original set of signs are as follows, with their analogues in Unicode:

	Name	Function in Tolong Siki	Analogous sign in Unicode
:	selā	vowel-length mark	: U+003A COLON
்	mitalā	consonant nasal sign	$\dot{\circ}$ U+0307 COMBINING DOT ABOVE
Т	hecakā	glottal stop	U+007C VERTICAL BAR
,	ghetalā	syllable separator	<sup>'</sup> U+02BC MODIFIER LETTER APOSTROPHE
਼	sulā	modifier	਼ U+0323 COMBINING DOT BELOW
ੋ	dugā	consonant modifier	$ar{\circ}$ U+0304 COMBINING MACRON
ੁ	pugā	consonant modifier	으 U+0331 COMBINING MACRON BELOW

Additional and replacement signs used from 2015 onwards, with their analogues in Unicode, are as follows:

	Name	Function in Tolong Siki	Analogous sign in Unicode
े	evā	nasalization	ົ U+0303 COMBINING TILDE
্	revā	cluster-final /r/	$_{\sim}$ U+0330 COMBINING TILDE BELOW
ੱ	ilā	consonant modifier	៉ U+0308 COMBINING DIARESIS
਼	uphā	consonant modifier	့ U+0324 COMBINING DIARESIS BELOW
്	phavā	vowel modifier	ँ U+0306 COMBINING BREVE
ା	sẽva	vowel modifier	$ar{\circ}$ U+0304 Combining macron $+ilon$ U+0303 combining tilde
<u>•</u>	sengã	vowel modifier	$ar{\circ}$ U+0304 combining macron $+  \dot{\circ}$ U+0307 combining dot above

Given the fact that all Tolong Siki diacritics are analogous with common combining signs that already exist in Unicode, it is practical to unify them with the existing Unicode characters. This means that instead of encoding, for example, *mitalā* as a unique character for Tolong Siki, the  $\dot{\odot}$  U+0307 COMBINING DOT ABOVE would be used instead. Similarly, the  $\tilde{\odot}$  U+0303 COMBINING TILDE would be used for *evā*. Designers of Tolong Siki fonts would then be responsible for ensuring that the glyphs for COMBINING DOT ABOVE or COMBINING TILDE would align with the overall aesthetics of the font.

Two characters are exceptions to the above; these should be encoding as distinct characters for Tolong Siki:

- The letter-like :  $sel\bar{a}$ : basic vowel lengthening, also has variant form  $\hat{s}$ ; usage of COLON would and  $sel\bar{a}$  within the same text would hinder such distinctions
- The letter-like I *hecakā*: although visually similar to VERTICAL BAR, it represents a glottal stop and is, therefore, semantic distinct

The recommendation to use common combining signs for Tolong Siki is not due to any specific aspects of the script; rather, it is based on sumilar practices in Cyrillic, Greek, Osage, and a whole host of others scripts, which regularly employ common combining signs for various purposes. The usage of these signs may have distinctive meanings in each of these individual scripts. But, the nature of the common combining signs offers users the ability and freedom to use diacritics freely.

In order to mix Latin text with diacritics and Tolong Siki — for example, for purposes of transliteration — a separate font would be used for each script. Accordingly, in an input method for Tolong Siki, the keys for the diacritics would be mapped to the respective code point for the combining signs.

The recommendation to unify combining signs is based on a similar approach taken for the encoding for the Sunuwar script in Unicode (see Pandey 2021: L2/21-157R). For Tolong Siki, the available materials strongly suggest that users and font designers are agreeable to using Latin diacritics. For example, in fig. 3 it is apparent that the nasalization sign  $\tilde{}$  *evā* is semantically and graphically equivalent to  $\tilde{}$  U+0303 COMBINING TILDE.

#### Additional notes:

- As the  $\bigcirc$  *pugā* does not join when there is sequential usage of the sign, it is appropriate to use  $\bigcirc$  U+0331 COMBINING MACRON BELOW instead of  $\bigcirc$  U+0331 COMBINING LOW LINE.
- The I *hecakā* is nearly, if not, completely identical to the digit I *one*. The two are distinguishable by context.

## 4 Proposed Character Repertoire

At present, the proposed repertoire for Tolong Siki consists of 54 characters: 41 letters, 2 letter-like marks, 1 auspicious sign, 10 digits:

	Letters
Character	Proposed Unicode Character Name
Ą	TOLONG SIKI LETTER I
٩	TOLONG SIKI LETTER E
8	TOLONG SIKI LETTER U
ð	TOLONG SIKI LETTER O
1	TOLONG SIKI LETTER A
Π	TOLONG SIKI LETTER AA
U	TOLONG SIKI LETTER P
ဖ	TOLONG SIKI LETTER PH
ಲ	TOLONG SIKI LETTER B
అ	TOLONG SIKI LETTER BH
ಲ	TOLONG SIKI LETTER M
ရ	TOLONG SIKI LETTER T
ဓ	TOLONG SIKI LETTER TH
ູ	TOLONG SIKI LETTER D
99	TOLONG SIKI LETTER DH
ຄ	TOLONG SIKI LETTER N
Ð	TOLONG SIKI LETTER TT
ស	TOLONG SIKI LETTER TTH
Ð	TOLONG SIKI LETTER DD
6	TOLONG SIKI LETTER DDH
୧୦	TOLONG SIKI LETTER NN
ଜ	TOLONG SIKI LETTER C
ଜ	TOLONG SIKI LETTER CH
ଜ	TOLONG SIKI LETTER J
ଜ	TOLONG SIKI LETTER JH
ଚେ	TOLONG SIKI LETTER NY
S	TOLONG SIKI LETTER K
3	TOLONG SIKI LETTER KH
ယ	TOLONG SIKI LETTER G
မ	TOLONG SIKI LETTER GH
ຎ	TOLONG SIKI LETTER NG

5	TOLONG	SIKI	LETTER	Y
ଶ	TOLONG	SIKI	LETTER	R
B	TOLONG	SIKI	LETTER	L
ദ	TOLONG	SIKI	LETTER	V
ស	TOLONG	SIKI	LETTER	NNY
ଓ	TOLONG	SIKI	LETTER	S
ิเจ	TOLONG	SIKI	LETTER	Н
<b>m</b>	TOLONG	SIKI	LETTER	Х
ક	TOLONG	SIKI	LETTER	RR
щ	TOLONG	SIKI	LETTER	RRH

### Modifier Signs

0	Character	Proposed Unicode Character Name
:		TOLONG SIKI SIGN SELA
I		TOLONG SIKI SIGN HECAKA

### Auspicious Sign

	i impiere as sign					
Character	Proposed Unicode Character Name					
<b>7</b> 0	TOLONG SIKI UNGGA					

	Digits
Character	Proposed Unicode Character Name
0	TOLONG SIKI DIGIT ZERO
I	TOLONG SIKI DIGIT ONE
8	TOLONG SIKI DIGIT TWO
8	TOLONG SIKI DIGIT THREE
3	TOLONG SIKI DIGIT FOUR
e	TOLONG SIKI DIGIT FIVE
e	TOLONG SIKI DIGIT SIX
6	TOLONG SIKI DIGIT SEVEN
9	TOLONG SIKI DIGIT EIGHT
e	TOLONG SIKI DIGIT NINE

9

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#### 4.1 Collation

The collating order for Tolong Siki is as follows:

 $\begin{array}{l} \texttt{PI} < \texttt{VE} < \texttt{FU} < \texttt{FO} < \texttt{1A} < \texttt{TIAA} < \texttt{UP} < \texttt{9PH} < \texttt{EB} < \texttt{BH} < \texttt{WM} < \\ \texttt{OT} < \texttt{OTH} < \texttt{PO} \\ \texttt{OT} < \texttt{OTH} < \texttt{OTH} < \texttt{OOT} < \texttt{OOT} < \texttt{OOT} \\ \texttt{OTH} < \texttt{OOT} < \texttt{OO$ 

#### 5 Character Data

Character Properties: UnicodeData.txt

```
11DB0;TOLONG SIKI LETTER I;Lo;0;L;;;;;N;;;;;
11DB1;TOLONG SIKI LETTER E;Lo;0;L;;;;;N;;;;;
11DB2;TOLONG SIKI LETTER U;Lo;0;L;;;;N;;;;;
11DB3;TOLONG SIKI LETTER 0;Lo;0;L;;;;;N;;;;;
11DB4;TOLONG SIKI LETTER A;Lo;0;L;;;;;N;;;;;
11DB5;TOLONG SIKI LETTER AA;Lo;0;L;;;;;N;;;;;
11DB6;TOLONG SIKI LETTER P;Lo;0;L;;;;N;;;;;
11DB7;TOLONG SIKI LETTER PH;Lo;0;L;;;;;N;;;;;
11DB8;TOLONG SIKI LETTER B;Lo;0;L;;;;N;;;;;
11DB9;TOLONG SIKI LETTER BH;Lo;0;L;;;;;N;;;;;
11DBA;TOLONG SIKI LETTER M;Lo;0;L;;;;N;;;;;
11DBB;TOLONG SIKI LETTER T;Lo;0;L;;;;N;;;;;
11DBC;TOLONG SIKI LETTER TH;Lo;0;L;;;;N;;;;;
11DBD;TOLONG SIKI LETTER D;Lo;0;L;;;;;N;;;;;
11DBE;TOLONG SIKI LETTER DH;Lo;0;L;;;;;N;;;;;
11DBF;TOLONG SIKI LETTER N;Lo;0;L;;;;N;;;;;
11DC0;TOLONG SIKI LETTER TT;Lo;0;L;;;;;N;;;;;
11DC1;TOLONG SIKI LETTER TTH;Lo;0;L;;;;;N;;;;;
11DC2;TOLONG SIKI LETTER DD;Lo;0;L;;;;;N;;;;;
11DC3;TOLONG SIKI LETTER DDH;Lo;0;L;;;;;N;;;;;
11DC4;TOLONG SIKI LETTER NN;Lo;0;L;;;;;N;;;;;
11DC5;TOLONG SIKI LETTER CA;Lo;0;L;;;;;N;;;;;
11DC6;TOLONG SIKI LETTER CH;Lo;0;L;;;;;N;;;;;
11DC7;TOLONG SIKI LETTER J;Lo;0;L;;;;N;;;;;
11DC8;TOLONG SIKI LETTER JH;Lo;0;L;;;;N;;;;;
11DC9;TOLONG SIKI LETTER NY;Lo;0;L;;;;;N;;;;;
11DCA;TOLONG SIKI LETTER K;Lo;0;L;;;;N;;;;;
11DCB;TOLONG SIKI LETTER KH;Lo;0;L;;;;;N;;;;;
11DCC;TOLONG SIKI LETTER G;Lo;0;L;;;;N;;;;;
11DCD;TOLONG SIKI LETTER GH;Lo;0;L;;;;;N;;;;;
11DCE;TOLONG SIKI LETTER NG;Lo;0;L;;;;;N;;;;;
11DCF;TOLONG SIKI LETTER Y;Lo;0;L;;;;N;;;;;
```

```
11DD0;TOLONG SIKI LETTER R;Lo;0;L;;;;;N;;;;;
11DD1;TOLONG SIKI LETTER L;Lo;0;L;;;;N;;;;;
11DD2;TOLONG SIKI LETTER V;Lo;0;L;;;;N;;;;;
11DD3;TOLONG SIKI LETTER NNY;Lo;0;L;;;;;N;;;;;
11DD4;TOLONG SIKI LETTER S;Lo;0;L;;;;N;;;;;
11DD5;TOLONG SIKI LETTER H;Lo;0;L;;;;;N;;;;;
11DD6;TOLONG SIKI LETTER X;Lo;0;L;;;;N;;;;;
11DD7;TOLONG SIKI LETTER RR;Lo;0;L;;;;;N;;;;;
11DD8;TOLONG SIKI LETTER RRH;Lo;0;L;;;;;N;;;;;
11DD9;TOLONG SIKI SIGN SELA;Lo;0;L;;;;;N;;;;;
11DDA;TOLONG SIKI SIGN HECAKA;Lo;0;L;;;;;N;;;;;
11DDB;TOLONG SIKI UNGGA;Lo;0;L;;;;;N;;;;;
11DE0;TOLONG SIKI DIGIT ZERO;Nd;0;L;;0;0;0;N;;;;;
11DE1;TOLONG SIKI DIGIT ONE;Nd;0;L;;1;1;1;N;;;;;
11DE2;TOLONG SIKI DIGIT TWO;Nd;0;L;;2;2;2;N;;;;;
11DE3;TOLONG SIKI DIGIT THREE;Nd;0;L;;3;3;3;N;;;;;
11DE4;TOLONG SIKI DIGIT FOUR;Nd;0;L;;4;4;4;N;;;;;
11DE5;TOLONG SIKI DIGIT FIVE;Nd;0;L;;5;5;5;N;;;;;
11DE6;TOLONG SIKI DIGIT SIX;Nd;0;L;;6;6;6;N;;;;;
11DE7;TOLONG SIKI DIGIT SEVEN;Nd;0;L;;7;7;7;N;;;;;
11DE8;TOLONG SIKI DIGIT EIGHT;Nd;0;L;;8;8;8;N;;;;;
11DE9;TOLONG SIKI DIGIT NINE;Nd;0;L;;9;9;9;N;;;;;
```

#### Linebreaking Properties: LineBreak.txt

11DB0..11DDB;AL# Lo[44] TOLONG SIKI LETTER I..TOLONG SIKI UNGGA11DE0..11DE9;NU# Nd[10] TOLONG SIKI DIGIT ZERO..TOLONG SIKI DIGIT NINE

#### Internal 'Confusable' Characters

11DDA; TOLONG SIKI SIGN HECAKA ; 11DE1; TOLONG SIKI DIGIT ONE

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### 7 Acknowledgments

I would like to express my gratitude to the following individuals who provided materials and information about Tolong Siki:

- Dr. Narayan Oraon
- Ashwin Kumar Kispotta
- Biswajit Mandal

The project to encode Tolong Siki has been made possible in part by funding from the Adopt-A-Character program of the Unicode Consortium and the effort is supervised by Deborah Anderson and Andrew Glass.

It was also made possible in part by a grant from the U.S. National Endowment for the Humanities, which funded the Universal Scripts Project PR-268710-20 (part of the Script Encoding Initiative at UC Berkeley). Any views, findings, conclusions or recommendations expressed in this publication do not necessarily reflect those of the National Endowment of the Humanities.

### 11DB0

## Tolong Siki

	11DB	11DC	11DD	11DE
0	<b>P</b> 11DB0	<b>()</b>	<b>6</b> 11DD0	<b>0</b> 11DE0
1	<b>Y</b> 11DB1	6 <b>Đ</b> 11DC1	<b>B</b> 11DD1	11DE1
2	<b>3</b> 11DB2	11DC2	<b>B</b> 11DD2	<b>8</b> 11DE2
3	ð	Թ	പ	8
4	11DB3	11DC3		11DE3
5	11DB4	11DC4	11DD4	11DE4
6	11DB5	11DC5	11DD5	11DE5
7	11DB6	11DC6	11DD6	11DE6
8	11DB7	11DC7	11DD7	11DE7
9	11DB8	11DC8	11DD8 •	11DE8
A	11DB9	11DC9	11DD9	11DE9
В	11DBA			
С	11DBB	11DCB	11DDB	
D	11DBC	11DCC		
	11DBD	11DCD		
E	11DBE	N 11DCE		
F	<b>EN</b> 11DBF	<b>5</b> 11DCF		

#### **Vowel letters**

Vowel	letters
11DB0 <del>P</del> 11DB1 V	TOLONG SIKI LETTER I TOLONG SIKI LETTER E
11DB2 3 11DB3 3	TOLONG SIKI LETTER U
11DB3 <b>7</b> 11DB4 <b>1</b>	TOLONG SIKI LETTER O TOLONG SIKI LETTER A
11DB4 <b>1</b>	TOLONG SIKI LETTER A
	nant letters
11DB6 U	TOLONG SIKI LETTER PA
11DB7 9	TOLONG SIKI LETTER PHA
11DB8 ຍ	TOLONG SIKI LETTER BA
11DB9 <b>ຍ</b> 11DBA <b>ຍ</b>	TOLONG SIKI LETTER BHA
11DBA ຍ 11DBB ຄ	TOLONG SIKI LETTER MA TOLONG SIKI LETTER TA
11DBC ត	TOLONG SIKI LETTER THA
11DBC ຄ	TOLONG SIKI LETTER DA
11DBE 20	TOLONG SIKI LETTER DHA
11DBF ຍ	TOLONG SIKI LETTER NA
11DC0 @	TOLONG SIKI LETTER TTA
11DC1 @	TOLONG SIKI LETTER TTHA
11DC2 o	TOLONG SIKI LETTER DDA
11DC3 <b>ഒ</b>	TOLONG SIKI LETTER DDHA
11DC4 ᢧ	TOLONG SIKI LETTER NNA
11DC5 <b>ດ</b>	TOLONG SIKI LETTER CA
11DC6 <b>ශ</b>	TOLONG SIKI LETTER CHA
11DC7 በ	TOLONG SIKI LETTER JA
11DC8	TOLONG SIKI LETTER JHA
11DC9 <b>6</b>	TOLONG SIKI LETTER NYA
11DCA 0	TOLONG SIKI LETTER KA
11DCB φ 11DCC ω	TOLONG SIKI LETTER KHA
11DCC ω 11DCD ω	TOLONG SIKI LETTER GA TOLONG SIKI LETTER GHA
11DCD 00	TOLONG SIKI LETTER GHA
11DCE <b>3</b>	TOLONG SIKI LETTER YA
11DD0 ຄ	TOLONG SIKI LETTER RA
11DD1 B	TOLONG SIKI LETTER LA
11DD2 6	TOLONG SIKI LETTER VA
11DD3 <b>റ</b>	TOLONG SIKI LETTER NNYA
11DD4 🕑	TOLONG SIKI LETTER SA
11DD5 p	TOLONG SIKI LETTER HA
11DD6 ෆ	TOLONG SIKI LETTER XA
11DD7 <b>s</b>	TOLONG SIKI LETTER RRA
11DD8 <b>"</b> 3	TOLONG SIKI LETTER RRHA
Specia	l marks
11DD9 :	TOLONG SIKI SIGN SELA
	= vowel length mark
11DDA I	TOLONG SIKI SIGN HECAKA
HEBR 1	<ul> <li>also called tala</li> </ul>
	= glottal stop
	Sional stop
Auspic	ious sign
11000	TOLONG SWILLINGGA

11DDB **70** TOLONG SIKI UNGGA

#### Digits

Digit		
11DE0	0	TOLONG SIKI DIGIT ZERO
11DE1	1	TOLONG SIKI DIGIT ONE
11DE2	8	TOLONG SIKI DIGIT TWO
11DE3	8	TOLONG SIKI DIGIT THREE
11DE4	3	TOLONG SIKI DIGIT FOUR
11DE5	e	TOLONG SIKI DIGIT FIVE
11DE6	8	TOLONG SIKI DIGIT SIX
11DE7	6	TOLONG SIKI DIGIT SEVEN
11DE8	9	TOLONG SIKI DIGIT EIGHT
11DE9	e	TOLONG SIKI DIGIT NINE

Anshuman Pandey

# ഗജ്ഴജന നെന്ദരു ശംഗം നെടാവല (कुँडुख़ तोलोङ सिकि तोःड़पाब) Tolong Siki Alphabet / तोलोङ सिकि वर्णमाला ഗ്രാനം നെടെ (सरह तोड़) = स्वर वर्ण (Vowels)

Рइі Уएс ४उ० ४ओ० ीअ२ ॥आव : (सेला) = लम्बी ध्वनि, '(मितला) = नासिक्य व्यंजन सूचक, '(घेतला) = शब्दखण्ड सूचक, ~ (एवाँ) = नासिक्य स्वर सूचक, ~ (रेवाँ) = लुप्ताकार र, । (हेचका) = अर्द्धस्वर अ∕व्यंजन अ

ตาตาต ดชะช (हरह तोड़) = व्यंजन वर्ण (Consonants)

<b>U</b> ų p	<b>ଓ</b> फ् ph	<b>ಲ</b> ब् b	<b>७</b> म् bh	<b>ध</b> म् m
<b>6</b> त् t	o थ् th	भ द् d	न ध्dh	७ न् n
<b>ल</b> ट् ț	<b>छ</b> र् th	<b>ि</b> ड् d़	<b>छ</b> द् dh	थ ण् n
o च् ch	ि छ chh	<b>வ</b> ज् j	க झ्jh	<b>ल</b> ज् n
<b>ഗ</b> क् k	0 ख् kh	ωग्g	<b>अ</b> घ् gh	o ङ् n
<b>5</b> य् y	४० र् r	<b>1</b> 3 ल् 1	<b>छ</b> व् w	<b>រ</b> ភ្ ព្
<b>७</b> स् s	<b>p</b> ह h	0 ख़् x	<b>अ</b> ड् r	७ ढ् rh

1390001 (लेक्खा) = संख्या, Numerals

0	T	8	8	3	e	٤	6	9	e	10
0	1	2	3	4	5	6	7	8	9	10

ตามมาถ เมาลา เกาลอา เกาลอา เกา เกาลอ ยางภัตช खद्दर गही कत्था अरा कत्थ बेयाँखो = बच्चे की बोली और भाषा विज्ञान

บาบท (पपा) = रोटी, ยายท (बबा) = पिता, ยายท (ममा) = भात। บาเรเร (पल्ल) = दाँत, ยาค (बई) = मूँह, ยงหรดท (मेलख़ा) = कण्ठ। กาดกา (ततख़ा) = जीम, มหมห (दुदु) = दूध, ยายกลค (नरटी) = भोजन नली।

ດາາະທາ ຈະບອນ ບ່ານເອນ, ຍາຍ, ພນເວດາ, ເວັ້ນອາຍຸດ ອຳະຕອາຣ ຕາມມາຍ. ດາດຕາ ມັ້ນມີຄອຍ ອາຣາຍອີ ດາຣາ ອາດພຍ ອັດຊາຍ ອັດຊາຍ ຕາມມາຍ.

Figure 1: Chart of Tolong Siki (provided by Narayan Oraon, March 2021).

#### ଉତ୍ୟାନ ମଝଝର

## 3. कुँडुख़ हहस⁄ कुँडुख़ भाषा की ध्वनियाँ (Kurux phonemes)

1. कुँडुख़ कत्था ही मूली सरह (कुँडुख़ भाषा की मूल स्वर स्वर ध्वनियाँ / Primary Vowel) : -

	<b>গান)</b> / बइता सरह aर, Oral vowel)	<b>७३१२०११ अभग /</b> मुँइता सरह (नासिक्य स्वर, Nasal vowel)					
<b>७१९९९२ अल्ली</b> सन्ती सरह (हृस्व स्वर, short vowel)	<b>अभ्धाना अक्षान</b> दिगहा सरह (दीर्घ स्वर, long vowel)	<b>७१९९९२ अक्षारक</b> सन्नी सरह (हृस्व स्वर, short vowel)	<b>अभ्धाता। (अक्षात)</b> दिगहा सरह (दीर्घ स्वर, long vowel)				
<b>₽ -</b> इ, i	<b>P: -</b> इ: i:	<b>`₽ -</b> ਝੋੱi	<b>̃₽: -</b> इँ: ĩ:				
<b>थ -</b> ए, e	<b>१: -</b> ए: e:	ĩv - ऍ e	<b>ĩv: -</b> ऍ∷ e:				
<b>४ -</b> उ, u	<b>४: -</b> उ: u:	<b>४ -</b> उँ u	<b>३: -</b> उँ <b>ù</b> :				
<b>४ -</b> ओ, o	<b>४: -</b> ओः o:	<b>४ -</b> ओं o	<b>ỡ: -</b> ओं: õ:				
<b>१ -</b> अ, a	<b>1: -</b> अः a:	<b>๊า -</b>	<b>ົາ: -</b>				
<b>॥ -</b> आ, <b>a</b>	<b>गः -</b> आः <b>वः</b>	<b>ា -</b>	<b>ৗ: -</b> आँ <b>वि</b> :				

2. कुँडुख कत्था ही जोट्ठा सरह (कुँडुख भाषा का संयुक्त स्वर / Diphthong) :--

जोट्ठा सरह – <b>११,</b>	٦૪, ٦	۱٧,	Ъ,	₽8,	8₽,	13,	1ദ,	~ે₽,	ĩ۶,	~îv,	ୖୄୢଡ଼	Ĩ₽¥,	₹₽,	ĩз,	<b>ົາ</b> ß∙	
अइ,	अउ,	ऐ,	औ	इउ,	उइ,	अय,	अव,	अँइ,	अँਚ,	È,	औं,	इँउ,	उँइ,	ॲंय,	ॲंव.	

3. कुँडुख़ कत्था ही मूली हरह (कुँडुख़ भाषा की मूल व्यंजन ध्वनियाँ / Primary Consonant) -

अघोष / N	onVoiced	सघोष / र	voiced	सघोष / v	roiced	अघोष/NonVoiced
मौखिक अल्पप्राण Non aspirated	मौखिक महाप्राण Aspirated	मौखिक अल्पप्राण Non aspirated	मौखिक महाप्राण Aspirated	नासिक्य अल्पप्राण Non aspirated	मौखिक अल्पप्राण Non aspirated	मौखिक अल्पप्राण Non aspirated
0 प्	<b>ও</b> फ्	<b>थ</b> ब्	<b>७</b> भ्	<b>ध</b> म्		
<b>6</b> त्	<b>ि</b> थ्	<b>ಖ</b> द्	<b>अ9</b> ध्	<b>श</b> न्	<b>5</b> य्	
<b>ि</b> ट्	<b>छ</b> र्	<b>6</b> ड्	<b>छ</b> ढ्	<b>श्र</b> ण्	<b>ध्र</b> र्	<b>७</b> स्
<b>छ</b> च्	<b>छ</b>	<b>ଜ</b> ज्	<b>ଜ</b> झ्	<b>೮</b> ञ्	<b>13</b> ल्	<b>ि</b> ह
<b>ा</b> क्	<b>छ</b> ख्	<b>ω</b> ग्	<b>८९</b> घ्	<b>ல</b> ङ्	<b>ß</b> व्	<b>ෆ</b> ख्
		<b>४</b> ड्	<b>अ</b> ढ्	<b>೧</b> ञ्		

Figure 2: Chart of Tolong Siki (provided by Narayan Oraon, March 2021).

ଉତ୍ୟାନ ରଂହେରେ

<b>ভাগান নামাও</b> / vowel sound/ खर ध्वनि	<b>ନାନ୍ଧୀନ ନାନୀଓ</b> / consonant sound / व्यंजन ध्वनि
P = i = इ     -     P	<b>८</b> =p= प् - <b>८१८।।।।।।</b> पपला, पचरी
V = e = v - VSOII - vsvii, solution	ଓ =p= ५ - ତାତାଣା - ५५९१, ५५९१ ଓ =ph= ଜ୍ - ତାଁଡଣ୍ଡ - फँसरी, फटका
រ = u = ថ - រយតា - ថាកា, ថមន្	$\mathbf{e} = \mathbf{b} = \mathbf{a} - \mathbf{e}$ <b>1313</b> $\mathbf{b} = \mathbf{a}$ त्ला
<b>४</b> = u = 0 = <b>१७७</b> ॥ = ७१९॥, ७५९९ <b>४</b> = o = ओ <b>- १७७॥ -</b> ओसगा, ओरोख़	ଓ = b = भ् - ତାରଃ - ५୯୯, ५୯॥ ଓ = bh = भ् - ତାରଃନ - भदड़ी, मँड़की
1 = a = अ - 190011 - अड्खा, अखड़ा	$\omega = m = \pi - \omega$ ाक्षा – नयुडा, नजुवम $\omega = m = \pi - \omega$ ाका – नरग, मचा
n = a = आ - n/3 - आल, आफ	
<b>1</b> – a – जा – <b>113</b> – जाल, जाल <b>P:</b> = i: = इ: – <b>P:©∏</b> – इ:मा, की:डा	ର = t = त् - ରାନମା - ततखा, तड़शे
$\mathbf{Y}_{*} = \mathbf{e}_{:}^{*} = \mathbf{y}_{:}^{*} - \mathbf{y}_{:}^{*}\mathbf{y}_{:}^{*} = \mathbf{y}_{:}^{*} + \mathbf{y}_{:}^{*}\mathbf{y}_{:}^{*}$	ର =th=थ्- ରାଖୀ - थड़ा, थइला
	ಖ = d = द् - भाशात्म - दउली, दुदही
<b>३:</b> = u: = उ: - <b>३:६०॥</b> - उ:रा, कूंबी	<b>29</b> = dh = ध् - <b>291078</b> - धनु, धरती
<b>४:</b> = 0: = ओ: - <b>४:९॥</b> - ओड़ा, ओड़ा	ଡ =n=न୍ <b>- ଡୀଞ୍ଜା -</b> नड़गा, नड़हा
<b>1:</b> = a: = अ - <b>1:03</b> - अ:व, द:व, क:व	<b>७ = t = ट् - (२)(२०००) -</b> टटखा, टमरस
<b>11:</b> = <b>a</b> : = 31 - <b>11:/34</b> - 31:en	ଡ = th = ट् - ତାର୍ଥ/ - उरकी, उठरा
$\tilde{\mathbf{P}} = \tilde{1} = \tilde{\mathbf{\xi}} - \boldsymbol{\Omega} \tilde{\mathbf{P}} \boldsymbol{\Omega} \boldsymbol{\vartheta} - \tilde{\mathbf{U}} \tilde{\mathbf{U}} \tilde{\mathbf{U}}, \tilde{\mathbf{U}} \tilde{\mathbf{U}} \tilde{\mathbf{U}}$	<b>क़</b> = dॖ= ड् - क़1३४॥ - डउड़ा, डिगची
<b>v</b> ̃ = ẽ = एँ - 0ṽ ṽ 11 - चेंड़ा, गेंड़ा ≈ ~	<b>क़</b> = dh = ढ् - क़ाशा - ढरा, ढेरा,
$\tilde{s} = \tilde{u} = \vec{v} - \omega \tilde{s} s \omega \mathbf{n} - \vec{v} s \sigma$	<b>७</b> = <b>ग</b> = ण - ७१७ का - भण्डा, डुण्डी
$\tilde{\boldsymbol{\sigma}} = \tilde{\boldsymbol{o}} = \tilde{\boldsymbol{o}} = \tilde{\boldsymbol{o}} + \boldsymbol{o} \tilde{\boldsymbol{\sigma}} \boldsymbol{o} \boldsymbol{\sigma} \boldsymbol{\sigma}$	<b>२</b> = ch = च् - <b>२०१४ -</b> चलकी, चपटा
ິ <b>1</b> = ິa =  ສັ <b>- ິາເອ∏ -</b>	ଜ = chh = छ् - ଜୀବഗा - छटका, छलका
$\tilde{\mathbf{n}} = \tilde{\tilde{\mathbf{a}}} = \check{\mathbf{m}} - \boldsymbol{\sigma} \tilde{\mathbf{n}} \mathbf{s} - \check{\mathbf{m}} \tilde{\mathbf{s}},  \check{\mathbf{m}} \tilde{\mathbf{s}}$	<b>०</b> = j = ज् <b>- ा१३१३.२ -</b> जल्ली, जंगला, जट्टा
$\tilde{\mathbf{P}}$ := $\tilde{\mathbf{I}}$ := $\tilde{\mathbf{S}}$ : - $\tilde{\mathbf{OP}}$ : $\tilde{\mathbf{P}}$ : - $\tilde{\mathbf{AI}}$ : $\tilde{\mathbf{SI}}$ , $\tilde{\mathbf{TI}}$ :	ଜ =jh=झ् - ଜୀ <b>ଥେ୩</b> - झमड़ा, झण्डा
$\widetilde{\mathbf{v}}_{:} = \widetilde{\mathbf{e}}_{:} = \breve{\mathbf{v}}_{:} - \mathbf{v}\widetilde{\mathbf{v}}_{:}\mathbf{sv} - \breve{\mathbf{v}}_{:}\dot{\mathbf{s}}_{:}\dot{\mathbf{s}}_{:}\dot{\mathbf{s}}_{:}\dot{\mathbf{s}}_{:}$	<b>ଡ</b> = n = ञ् <b>- ଜ୍ମଂଡୀ। -</b> चिञा, सिञा, कोंयछा
<b>រ</b> <b>រ</b> := ũ:= उँ:- अर्गे:४ - कूँड़, पूँप ~	<b>०</b> = k = क् <b>- ०१०९४ -</b> ककड़ो, कड़मा
<b>ð:</b> = õ: = ओं - <b>()ð:911 -</b> कोंड़ा, तोंड़ो	🛯 = kh = ख् - 🖓 २०१० 🔊 - खपरा, खरपा
$\tilde{\mathbf{j}}$ : = $\tilde{\mathbf{a}}$ : = $\check{\mathbf{a}}$ : - $\tilde{\mathbf{j}}$ : - $\check{\mathbf{a}}$ : - $\check{\mathbf{a}}$ : $\check{\mathbf{a}}$ , $\check{\mathbf{a}}$ : $\check{\mathbf{a}}$ , $\check{\mathbf{a}}$ : $\check{\mathbf{a}}$ , $\check{\mathbf{a}}$ :	<b>ω</b> = g = ग् - <b>ωιωωπ</b> - गमछा, गगरा
<b>Ĩi:</b> = a: = आँ <b>- Ĩi:७०७-</b> आँ:ड़को, भाँ:ड़ो	
<b>१२</b> = ai = अइ - <b>८७१२९४१ -</b> कइला, चइला	<b>०</b> = n = ङ् - <b>२१७०१ -</b> झिलङी, झोलङो, डोडा
1४ = au = अउ - 1४४००॥ - अउड़का, कउड़ी	<b>3</b> = y = य् - <b>११२३॥</b> - किया, जिया, पया, मया
<b>1</b> ¥ = ae = ऐ∕ अय् - <b>७२१८०</b> - नैग, कैर	$\mathbf{s} = \mathbf{r} = \mathbf{x} - \mathbf{s} 1 \mathbf{O} \mathbf{s} \mathbf{P} - \mathbf{x} \mathbf{s} \mathbf{s} \mathbf{s}$ , रहटा, रो:गे, रट्टा
<b>18</b> = ao = औ/अव् - <b>धारिक्र -</b> बौग, नौर	B =1= ल् - BIAA¥ - लट्टु, लड्ड, लवटो
P3 = iu = इउ - P3 शाआा - इउन्दा, चिउरा	<b>ଓ</b> = v = व् <b>- काछा -</b> जवा, लवा, तवा, मड़वा
<b>३</b> म = ui = उइ - ३ म्8ाा - उइरा, कुइला	<b>८</b> = z = ञ् - <b>१४४६८४ -</b> कोरञो, तूञ, कुञी
ិ្ 1₽ = ãi = अँइ - 011₽6 - कँइत, गँइता	<b>७</b> = s = स् - <b>७१८१४ -</b> सगड़, सिकड़ी, सुरती
Îł = ãu = अँउ - เก๊าł ฯ - ต้उड, झँउड़	a = h = ह - a13011 - हड़का, हरिन, हँसली
ĩv= ãe = ऍ∕ अँय् - ดัางม011 - चैंदना, पैंड़ा	<b>০ = x = ख़् - ০০৫০ -</b> ख़न्न, ख़ज्ज, ख़ेंस
<b>ຳ</b> ጽ = ão = औ⁄ अँव् <b>- ຕົາິชຄ -</b> चौर, भौरो	<b>४</b> = <b>ŗ</b> = ड् <b>-</b> ων <b>γγ</b> - गेड़े, घोड़ो, गड़ना
$\tilde{P}\mathfrak{F}\mathfrak{F} = \tilde{I}\mathfrak{u} = \tilde{\sharp}\mathfrak{T} - \tilde{P}\mathfrak{F}\mathfrak{S}\mathfrak{N}\mathfrak{I} - \tilde{\sharp}\mathfrak{T}\mathfrak{T}$	अ = th = ढ् - ωोअ - गढ़े, बाढ़ी, उढ़ीयारना
$\widetilde{s}$ ៖ $= \widetilde{u}i = \breve{v}$ র - ២ $\widetilde{s}$ ៖ស $s$ - पुँइदा, सुँइतु	। = a = अ - जभाष्णा - चिअ़ना, नेअ़ना, बअ़ना

Kǘrux phonemes / कुँडुख़ ध्वनियाँ (As per minimal pair theory)

Figure 3: Chart of Tolong Siki (provided by Narayan Oraon, March 2021).

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ອາສ	ាង តរះទ	= स्वर	় বর্্				
₽.	V 3	ð	า	Π			
	eए uउ	0 ओ	a अ	<u>a</u> आ			
ອາຄ	າອ ຄາະຮ	। = व्यंच	नन वर्ण				
υ	ى	ల	ಅ	ట		लेक्स	बा
рч	ph फ्	b ब्	bh भ्	m म्	0		0
െ	ഒ	ູ	39	ຄ	1	<u> </u>	1
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Figure 4: Chart of Tolong Siki (from TolongSiki.com).



Figure 5: Chart of Tolong Siki published by Francis Ekka (2007: 4). This document illustrates the overall stability of the basic letters, digits, and primary signs of the script over the past 15 years. It also shows the diacritics that were used in the early phases of the script.

E		
1 L	सिंह, मा० प्र० से०	कार्मिक, प्रशासनिक सुधार तथा राजभाषा
	Singh, I.A.S.	विमाग, झारखण्ड, राची ।
- जायुक्त एवं २		Department of Personnel, Administrative Reforms & Rajbhasha, Government
Commissione	and Secretary	Sharkhano, Hanchi.
	s	☎ 0651 - 2403221 (Off.) 0651 - 2480048 (Res.) 0651 - 2403253 (Fax)
	पत्रांक :-8/रा०-8/2001का0129	, दिनांक : 18-9-2003
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· · ·	सचिव,	
	गृह मंत्रालय,	
	भारत सरकार, नई दिल्ली ।	
	<b>A</b> mma	
	विषय :- भारतीय संविधान की आठवीं अनुस्ची	में संयाली, मुण्डारी, हो एवं उरांव/
	कुरूख मापा को शामिल करने के संब महोदय,	ंघ में।
	झारखण्ड राज्य के अन्तर्गत संथाली, मुण्डारी, हो,	
	स्थान है । संशासी भाषा की दिन मन्द्रे ह का	अराव/ कुरूख भाषा का एक महत्वपूर्ण
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	जनगणनः के अनुसार संयाली, मुण्डारी, हो तथा उसंव/ कुर	रुख भाषा का गर्गम ज्याराज्य नहीं है
	के 29 राज्यों एवं दो केन्द्र शासित प्रदेशों में करने वाली	
		जनसंख्या कमशा: 52,16,325, 8,61,378,
	9,49,216 तथा 14,26,618 है।	
	झारखण्ड सहित अन्य कई राज्यों में इन भ	गणओं को पढाई विद्यालयों महाविद्यालयों
	तथा विश्वविद्यालय स्तर पर होती है ।	
	<ul> <li>जनजातीय भाषाओं के उत्थान के दृष्टिकोण</li> </ul>	से झारखण्ड सरकार का यह सुविचारित
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Figure 6: A letter submitted by the Government of Jharkhand to the central government in 2003, requesting the inclusion of Santhali, Mundari, Ho, and Kurukh in the Eighth Schedule of the Constitution of India. The underline occurs in a sentence about the scripts associated with the aforementioned languages: "The script for the Santhali language is 'Ol Chiki', the script for Mundari is 'Devanagari', the script for Ho is 'Varang Kshiti', the script for Oraon / Kurukh is 'Tolong Siki'." Document courtesy of Ashwin Kumar Kispotta.



Figure 7: Announcement published in 2009 by the Jharkhand Academic Council permitting the usage of Tolong Siki in secondary school examinations. Document courtesy of Ashwin Kumar Kispotta.

## झारखण्ड अधिविद्य परिषद्, राँची JHARKHAND ACADEMIC COUNCIL, RANCHI

### अधिसूचना

संख्या – JAC/गुमला/16095/12 ....../ झारखण्ड अधिविद्य परिषद् की बैठक संख्या 73 दिनांक 23.01.2016 में लिए गए निर्णय के आलोक में कुबुख भाषा की परीक्षा तोलोंग सिकी लिपि में लिखने की अनुमति वार्षिक माध्यमिक परीक्षा, 2016 से प्रदान की जाती है।

तोलोंग सिकी लिपि में लिखने वाले परीक्षार्थी अपनी उत्तरपुस्तिका में लिपि संबंधी कॉलम में "तोलोंग सिकी" अवश्य लिखेंगे।

अध्यक्ष के आदेश से

सचित

ज्ञापांक : <u>उति</u> <u>)</u> सता <u>1609</u> <u>12-0607</u> <u>16</u> जारखण्ड अधिविद्य परिषद, राँची। प्रतिलिपि : अच्यक्ष के निजी सहायक / उपाध्यक्ष के निजी सहायक / सचिव के निजी सहायक / संयुक्त सचिव के निजी सहायक / उपाध्यक्ष के निजी सहायक / गठित समिति के सभी सदस्यों को सूचनार्थ एवं आवश्यक कार्यार्थ प्रेषित।

ज्ञापांक <u>टाफटोकेस्ता 1609512-0607 16</u> अह्यारखण्ड अधिविद्य परिषद, राँची। प्रतिलिपि : सचिव, स्कूली शिक्षा एवं साक्षरता विभाग, झारखण्ड/निदेशक (मा० शि०) को सूचनार्थ एवं आवश्यक कार्यार्थ समर्पित।

सचिव

झारखण्ड अधिविद्य परिषद्, राँची।

Figure 8: Announcement published in 2016 by the Jharkhand Academic Council permitting the usage of Tolong Siki in university examinations. Document courtesy of Ashwin Kumar Kispotta.

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୦୦୦୩୮ନ ମଃଥିର	तरपाँती – पईत्त पाब –	पक्खे
कुँडुख़ टाईम्स	<ol> <li>तोलोंग सिकि (लिपि) का आधार (प्रकृति और कलाकृति)</li> </ol>	02
https://kurukhtimes.com	<ol> <li>कुँडुख़ तोलोंग सिकि तोड़पाब (वर्णमाला)</li> </ol>	03
वेब वर्जन पत्रिका का त्रैमासिक	<ol> <li>कुँडुख हहस (कुँडुख ध्वनियाँ)</li> </ol>	04
मुद्रित संस्करण	<ol> <li>झारखण्ड आन्दोलन की नींव और मातृभाषा के विकास की चुनौतियाँ</li> </ol>	06
(अंक 02, जनवरी से मार्च 2022)	<ol> <li>कुँडुख़ कत्थ तोलोंग सिकि उल्ला अरा हपता जतरा</li> </ol>	11
Consulting Editor:	<ol> <li>6. धुमकुड़िया कोरना उल्ला माघ पुनई नू –</li> </ol>	18
Mr Kislaya Mob.# 9431113111	7. राःजी गे (वीर बुधू भगत गे सिरनी अरगाअना डण्डी) –	21
Executive Editor :	8. पड़हा–खोंड़हा बेसे कुँडुख तोड़पाब (कत्थडण्डी) –	23
Dr. Bindu Pahan, Jamshedpur	<ol> <li>9. धुमकुडिया नू बिल्ली दगआ लगदम</li> </ol>	25
Mob # 9798956544	10. अखडा ता चाःचा पटनी –	23
Co-ordinator :		28
Dr. Narayan Oraon, Sainda, Sisai, Gumla, Mob.# 9771163804	11. राष्ट्रीय शिक्षा नीति 2020 एवं मातृभाषा शिक्षा सह कुँडुख़ भाषा तोलोंग	
Assistent Co-ordinator :	सिकि तथा धुमकुड़िया विषय पर तीन दिवसीय कार्यशाला –	30
Shri Bhuneshwar Oraon, Tilsiri,	<ol> <li>टी०सी०एस० द्वारा चलाये जा रहे भाषा शिक्षण केन्द्र</li> </ol>	31
Ghaghra Gumla, Mob # 9798956544	13. मुद्ध कत्थसिञा (मुख्य समाचार) —	32
Editorial Board :		0.1
1. Shri Jita Oraon, Ranchi	. Uश्रेलला (पेंच्छका = संप	ादकीय)
Mob. # 9905215471	เลยรัณ จ.ติตเบ และยั จ.ล.เบ แกวย เมื่อจ. เลยร์ เป็น เมื่อจ.	າ ພາດຄ <sub>ີ</sub> ຄ
2. Shri Rajendra Bhagat, Jogo Pahar,	ບານຄາ. ຍຸບານຄາ ຫະ ທີ່ຮະດ ທາດຄາ ທາດຫາທາ	
Ranchi, Mob# 9798956544	The subsector of the structure structure electron electronic structure e	
3. Mr. Mahadeo Toppo, Ranchi	ບາຈຄຄາຍ ບາເດທາ ເທາ ຄາຍພິດາ ທາອ. Linguistic survey of Ind	
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<ol> <li>Dr. (Smt.) Shanti Xalxo, Ranchi Mob. # 9905215471</li> </ol>	ພາຍາມ ເຊາຕອງເພ. 4ສາຍ ຕາມຍຸມ ຄວາມຄ ຄວາຊ ເຊຍ ເຊຍ ເຊຍ ເຊຍ ເຊຍ ເຊຍ ເຊຍ ເຊຍ ເຊຍ ເຊ	<b>2016 BV</b>
5. Dr. Meena Toppo, Ranchi	ຍາເຄາເຫາ ບາກລາເທາ ບານ ອາຫາ ອາຫາ ອາຫາ ອາຫາສາດ ອາຫາສາດ ເປັນ ເປັນ ເປັນ ເປັນ ເປັນ ເປັນ ເປັນ ເປັນ	ទី ហាះរះវា
Mob # 9431729685	เรานอาทุธ, บาคจั อองหร งาาะเรหูธ อาญา องอ-องน (संस्कार	),  ଶ୍ୟର-
6. Dr. Narayan Bhagat, Ranchi	തוואז (संस्कृति) าตา พรด-มายุดรรถ มรดดรย ยรมาตา เวเมช	ງາຍ.
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7. Dr. Satyotam Bhagat, Jamshedpur	1 BI OF 12 OF WIR OF WIR WIRD I WIRD I WIRD OF OF	
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Parha Akhra (Addi Akhra), Ranchi Prepared by :-Addi Kurukh Chaala Dhumkuriya Parha Akhra (addi Akhra), Ranchi In association with TRIBALCULTURALSOCIETY JAMSHEDPUR An Ethnicity Wing of TATASTEELFOUNDATION

Dated - 20.03.2022

ພາທາ.

- Bindu Pahan, E. Editer

Figure 9: Content page from the *Kurukh Times*, January – March 2022 edition, showing text in Tolong Siki, Devanagari, and Latin scripts.

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ຄາຍາມ ແມ່ນອງ ເພື່ອງ ເພື

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Figure 10: Page from *Kurukh Times*, January – March 2022 edition, containing poetry written in Kurukh.

## कहानी

# सोने की अण्डे देने वाली मुर्गी (ຜາທາ ພາຣາ ຍາ ດາະ ຕາະສ)

୪ ୬**୦** ୩ **URON LOAN AIDA AUDA AUDA AUDA** ओंटे आलस गुसन ओंटे कतडी खेर रहचा। ∎ຎ 380 D 3BB1 ४००२४ ७४०॥ ७॥७५ ०५ ०५४॥ ४१०४॥ अत उमी सोना गही बी टिडआ लगिया। उल्ला ओंटे Π <u></u> ແຊງ ເອ້ ແລະ ເບັ້ນ BYB1819 NT Y89Y 79AY **୧୦ କ រេអូលាយាល ចាំនេក បង្កានានងថា សារលា** आ आलस घोकआ हेल्लरस का एन्ने ओंटे ओंटे बी ती धनगर चाडें पोल्लोस मना। 🕼 🛚 🕫 ΠЮ OIOIOIOIO OI OV: OIO OFOIOນາທາ  $\omega_1 \beta_1 \omega_3 \beta_1$ റെ 3007 07510 ୬**୦୬୬**୬୬ *OP070*. खने आस ठानचस का आस खेरान पिटर दरा अदी गही कूल ती उर्मी बियान ओथोरअर बिसोस। **🛛 ७४:७०० ४७२२७, ७००**४ **ШП ГОЛУ ГАЙ СР ШПЗ ЗОВОП.** आस खेरान एड्बियस, खने गा ओंटे हूं बी मल उर्खा। Р 13 v மி ? П ப அபல பில பி บคข้ 36081 5 33BN UTBBIIG ຍາຍາ G۷ **እወወለ እወወለ** e P A LOO LO B0730 ∎ൗ+ຎ หร่ายง่าง อากาย การกาย. इ लेखआ आस धनगर गा पोल्लास मना, पहें उर्मी उल्ला जे ओंटे ओंटे बी खक्खा लगियस अदिन हूं बेंडा बाचस चिच्चस। मल मंन्ना चाही ।

Figure 11: A Kurukh story printed in Tolong Siki with intralinear transliteration in Devanagari (from Ekka 2007: 13). Note the depiction of : *sela* as the ° form with open circles.

# তোলোঙ সিকির বর্ণমালা

## (তোড়পাব)

 তোলোঙ সিকি<sup>7</sup> তে মোট ৪৬ টা বর্ণ আছে। এ খানে ১০ টা স্বর বর্ণ তথা ৩৫ টা ব্যঞ্জন বর্ণ আছে। আর একটা নাসিক্য ব্যঞ্জনসূচক বর্ণ 'মিতলা' আছে। অতএব তোলোঙ সিকির বর্ণমালা কে দুই বর্গে বিভাজিত করা হয়, সরহ তোড় তথা হরহ তোড়।

# সরহ তোড় = স্বরবর্ণ

4	٧	8	ð	า	Π
া শ	е <b>ସ</b>	u <b>উ</b>	o <b>3</b>	a <b>অ</b>	a আ
: সেলা =	লম্বা ধ্বনি,		~ (এবাঁ) এওয়াঁ =	নাশিক্য স্বর	ধ্বনিসূচক,
<b>'</b> ঘেতলা	🛛 = শব্দখঁড সূ	চক,	। হেচকা = বি	কারী অ, অ	র্ধস্বর 'অ্'
সূচক ।					

বাস্তবে কুড়ুখ় ভাষা তে ছয় টাই মূল স্বর রয়েছে। সেলা তথা এওয়াঁ সাথে মিশ্রিত হইয়া, এই মূল স্বর গুলো বিভিন্ন রুপ নির্মাণ করে। জেমনঃ-

4	۷	8	ð	า	Π
<b>₽</b>	Ĩ	Ĩ	Ĩ	ĩ	Ĩ
<b>₽:</b>	٧:	3:	ð:	1:	Π:
¥ <b>:</b>	ĩ:	3:	ĩ:	ĩ:	ĩ:

এ ছাড়া উপরোক্ত স্বর গুলো নিজেদের সাথে মিশে তথা য়্, ওয়া সাথে মিশে বিভিন্ন রুপ নির্মিত করে।

#### ঘেতলা তথা হেচকাও স্বর মতই ব্যবহৃত হয়।

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Figure 12: A Tolong Siki primer in Bengali, showing the basic vowel letters and representations of vowel length (Minz 2016: 7).

## সংয়ুক্ত ব্যঞ্জন বর্ণ (জোট্ঠা হরহ তোড়)

#### ഹുരങ്ങ ലാഖാം ടെം

যখন দুই খানা ব্যঞ্জন বর্ণ এক সাথে মিলে যায় বা জুড়ে যায়, তখন তাকে সংযুক্ত ব্যঞ্জন বলা হয়। সংযুক্ত হওয়ার নিয়ম কুড়ুখ় তথা বাংলা তে এক রকমই আছে।

ນດາເບົາເອັນ ເຊິ່ງ ເຊິ ເຊິ່ງ ເຊິ່

নিচে সংযুক্ত ব্যঞ্জনের উদাহরন পড়ুন আর লিখুন। ০০০৩ এন ৫০০০ এন

প্+প ৩+৩ = শ্ব ৩৩, পশ্বড়া ৩৭৩৬॥ = এক রকমের ফল। প্+প ৩+৩ = শ্ব ৩৩, কশ্বনা ৫৭৩৬॥ = ধরা / স্পর্শ করা। চ্+চ ০+০ = চ্চ ০০, খচ্চনা লা০০৩॥ = ভাঙ্গা, বাচ্চা ৩৭০০॥=লুট দ্+দ ৯+৯ = দ্দ ৯৯, খদ্দ লা৯৯ = বেদ্দা ৩৭৯৯॥ = খোজ করো। চ্+ছ ০+০ = চ্ছ ০০, মেচ্ছা ৬৭০০॥ =উঁচু, গেচ্ছা ৬৭০০॥=দূর। জ্+জ ০+০ = ড্জ ০০, অজ্জো ৭০০ = লাদু, অজ্জী ৭০০। দাদী। ট্+ট ৫+৫ = ট্ট ৫৫, চুট্টি ০৪৫৫৭ = চুল, সুট্টি ৩৪৫৫৫৭ = ছড়ি। ট্+ঠ ৫+৫ = ট্ঠ ৫৫, মুট্ঠী ৬৪৫৫৫৭ = চুল, সুটি ৩৪৫৫৭ = ছড়ি। ট্+ড ৫+৫ = ড্ড ৫০, গড্ডী ০৪৫৫৭ = হার্ল, অড্জা ৭০০। লের্জা লির্জের্ণ = জায়গা। ল্+জ ৫+০ = জ্য ৫০, গড়িটি ৯৫৫৫৭ = হার্জ, গেড্ডা ৫৫৫৫৭ = জায়গা। ব্দল ৫+৫ = জ্য ৫৫, গড়ি ৫৫৫৫৫৭ = হার্জ, জায়ের্জ্য ৭৫৫৫৭ = জায়গা।

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Figure 13: Excerpt from a Tolong Siki primer in Bengali, showing representation of consonant clusters (Minz 2016: 30).



Figure 14: Tolong Siki used as primary title on covers of books, along with other scripts. Images courtesy of Aswin Kumar Kispotta.

ISO/IEC JTC 1/SC 2/WG 2 PROPOSAL SUMMARY FORM TO ACCOMPANY SUBMISSIONS FOR ADDITIONS TO THE REPERTOIRE OF ISO/IEC 10646.1 Please fill all the sections A, B and C below. Please read Principles and Procedures Document (P & P) from _http://std.dkuug.dk/JTC1/SC2/WG2/docs/prince guidelines and details before filling this form. Please ensure you are using the latest Form from _http://std.dkuug.dk/JTC1/SC2/WG2/docs/summaryfor See also _http://std.dkuug.dk/JTC1/SC2/WG2/docs/roadmaps.html_ for latest <i>Roadmaps</i> .	
A. Administrative	
1. Title: Proposal to encode Tolong Siki in Unicode	
2. Requester's name: <u>Anshuman Pandey <pandey@umich.edu></pandey@umich.edu></u>	
3. Requester type (Member body/Liaison/Individual contribution): Expert contribution	
4. Submission date:       2023-01-05         5. Requester's reference (if applicable):       2023-01-05	
6. Choose one of the following:	
This is a complete proposal:	Yes
(or) More information will be provided later:	
B. Technical – General	
1. Choose one of the following:	
a. This proposal is for a new script (set of characters):	Yes
Proposed name of script: <u>Tolong Siki</u> b. The proposal is for addition of character(s) to an existing block:	
Name of the existing block:	
2. Number of characters in proposal:	54
3. Proposed category (select one from below - see section 2.2 of P&P document):	
A-Contemporary X B.1-Specialized (small collection) B.2-Specialized (large collection	on)
C-Major extinct D-Attested extinct E-Minor extinct	
F-Archaic Hieroglyphic or Ideographic G-Obscure or questionable usage sym	nbols
4. Is a repertoire including character names provided? a. If YES, are the names in accordance with the "character naming guidelines" in Annex L of P&P document?	Yes Yes
b. Are the character shapes attached in a legible form suitable for review?	Yes
5. Fonts related: a. Who will provide the appropriate computerized font to the Project Editor of 10646 for publishing standard?	the
Anshuman Pandey	·····
b. Identify the party granting a license for use of the font by the editors (include address, e-mail, ft Anshuman Pandey	p-site, etc.):
6. References:	
<ul> <li>a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided?</li> <li>b. Are published examples of use (such as samples from newspapers, magazines, or other source of proposed characters attached?</li> </ul>	Yes es)
7. Special encoding issues: Does the proposal address other aspects of character data processing (if applicable) such as inpupresentation, sorting, searching, indexing, transliteration etc. (if yes please enclose information)?	ut, Yes
8. Additional Information:	
Submitters are invited to provide any additional information about Properties of the proposed Character that will assist in correct understanding of and correct linguistic processing of the proposed character(s) Examples of such properties are: Casing information, Numeric information, Currency information, Displainformation such as line breaks, widths etc., Combining behaviour, Spacing behaviour, Directional behaviour, relevance in Mark Up contexts, Compatibility equivalence and other Unicode norm related information. See the Unicode standard at <a href="http://www.unicode.org">http://www.unicode.org</a> . for such information on other see Unicode Character Database ( <a href="http://www.unicode.org/reports/tr44/">http://www.unicode.org</a> . for such information on other see Unicode for consideration by the Unicode Technical Committee for inclusion in the Unic	) or script. ay behaviour aviour, Default alization r scripts. Also nical Reports

<sup>&</sup>lt;sup>1</sup> Form number: N4502-F (Original 1994-10-14; Revised 1995-01, 1995-04, 1996-04, 1996-08, 1999-03, 2001-05, 2001-09, 2003-11, 2005-01, 2005-09, 2005-10, 2007-03, 2008-05, 2009-11, 2011-03, 2012-01)

#### C. Technical - Justification

C. Technical - Justification		
1. Has this proposal for addition of chara	acter(s) been submitted before?	No
If YES explain		
	of the user community (for example: National Body,	
user groups of the script or charac	ters, other experts, etc.)?	Yes
If YES, with whom?	Narayan Oraon <oraon.narayan@gmail.com></oraon.narayan@gmail.com>	
	Ashwin Kumar Kispotta <ashlumen37@gmail.com></ashlumen37@gmail.com>	>
If YES, available relevant d		
3. Information on the user community for		Vee
- · ·	chnology use, or publishing use) is included?	Yes
Reference:	See text of proposal	
	haracters (type of use; common or rare)	Common
Reference:	See text of proposal	
<ol><li>Are the proposed characters in currer</li></ol>		Yes
If YES, where? Reference:	Tolong Siki is used by Kurukh speakers in India and ha	
	recognition in the states of Jharkhand and West Be	
	principles in the P&P document must the proposed characters	
in the BMP?		No
If YES, is a rationale prov	vided?	
If YES, reference:		
<ol><li>Should the proposed characters be keep</li></ol>	ept together in a contiguous range (rather than being scattered	I)? Yes
<ol><li>Can any of the proposed characters b</li></ol>	e considered a presentation form of an existing	
character or character sequence?		No
If YES, is a rationale for it	ts inclusion provided?	
If YES, reference:		
9. Can any of the proposed characters b	e encoded using a composed character sequence of either	
existing characters or other propos		No
If YES, is a rationale for it		
If YES, reference:		
	be considered to be similar (in appearance or function)	
to, or could be confused with, an e		No
If YES, is a rationale for it	-	
If YES, reference:	mbining abaractors and/or use of compacity converses	NIS
	mbining characters and/or use of composite sequences?	No
If YES, is a rationale for such use	provided?	No
If YES, reference:		
	nd their corresponding glyph images (graphic symbols) provide	ed? No
If YES, reference:		
<ol><li>Does the proposal contain character</li></ol>		
control function or similar semantic	cs?	No
If YES, describe in detail	(include attachment if necessary)	
	raphic compatibility characters?	No
13. Does the proposal contain any Ideo		
	onding unified ideographic characters identified?	