Preliminary Proposal to Encode the Kurux Banna in UCS

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1. Introduction

The purpose of the documents is to bring the attention of the Unicode Technical Committee (UTC) the Kurux Banna. It provides a draft character repertoire, names list, and some specimens. An allocation for the script should be made in the roadmap to the Supplementary Multilingual Plane. The code chart, name list, and all information presented here are subject to change. Additional information will be provided as it is obtained.

2. Background

Kurux Banna (also called '*Kũṛux Bannā Siki/Lipi*' ꗖꕢꕛ ꕟꕞꕨ ꕞꗡꕛ/ꗡꕞꗢ or '*Kũṛux Toṛ*' ꗖꕢꕛ ꕛꕞ) is an alphasyllabary based upon the Brahmi model. Kurux Banna (ꗖꕢꕛ ꕟꕞꕨ) is a script used for writing Kurukh (ISO 639:kru and ISO 639:xis; Tolong Siki: ꕝꕞꕚꕝ, Kurux Banna: ꗖꕢꕛ, Devanagari:कुँड़ुख, Odia:କୁଁଡ଼ୁଖ and Bengali:কুঁড়ুখ), a Northern Dravidian language of 2.28 million people (census 2011) primarily spoken in Odisha, Jharkhand, West Bengal, Chhattisgarh, Assam, etc. of India.

Kurux Banna is developed by Basudeo Ram Khalkho in Odisha during the 1990s. The first book written by him is found in '*Kũṛux Bannā Lipi Arā Bakka Gaṛhan Part-1*'. This script is revised once in 1998. Some letters and numbers were reshaped and added one more sign. Kurukh language is used by Oraon and Kisan people. This script is mostly use by the Oraon people, concentrated in northern Odisha. A number people of Kisan people are using this script also. Most of the users are from Odisha, some number of users is also from other states like Jharkhand and West Bengal. Another script developed by Dr. Narayan Oraon (L2/23-024) in 1999 for Kurukh is 'Tolong Siki' (ꕝꕞꕚꕝ ꕨꕞꕝ), which is widely used in West Bengal and Jharkhand. Both the scripts are being used. Both the scripts are developed differently and they are not related to each other.

Kurux Banna has been accepted as the official script by the *Kurux Bhasha Sahitya Vikas Parishad* (ꗖꕢꕛ ꕟꕞꕨ ꕞꕟꕛꕩ ꕞꕚꕞꕣ ꗢꕟꕨꕝ). Most of the books being published by this organization. Apart from this *All Odisha Kurukh Parha Yubak Sangh* (ꕩꕝ ꕣꕞꕟꕢ ꗖꕢꕛ ꕞꕝꕢ ꕨꕞꕚ ꕒꕩ) and *All India Kurukh Parha Yubak Sangh* (ꕒꕞꕟ ꕟꕞꕝ ꕣꕞꕚ ꗖꕢꕛ ꕞꕝꕢ ꕨꕞꕝꕞꕨ ꕒꕞꕞ) organizing various workshops all over the Odisha. *Raji Parha Bharat* (ꕣꕞꕚ ꕞꕝꕢ ꕟꕞꕝ) organizing various workshop classes in Jashpur (Chhattisgarh). *Kũṛux Bhāṣā Sāhitya Vikās Parişad, Jharkhand* (ꗖꕢꕛ ꕟꕞꕨ ꕞꕟꕛꕩ ꗢꕟꕨꕝ ꕞꕨꕟꕝꕨ) is operating Kurukh schools in the state. Local organizations also use this script in their social gatherings or programs like: *Kurukh Jetthe Jatra* (ꗖꕢꕛ ꕞꕞꕢꕢ ꕞꕞꕝꕢ), *Summer Vocation Student Meet* (ꕞꕩꕝ ꕟꕞꕚꕩ ꕞꗡꕞꕨꕚꕩ ꕞꕚꕩ), *Daara Parha Barhabas* (ꕨꕞꕞ ꕞꕝꕢ ꕟꕝꕩꕞꕨꕞꕨ), etc.

There are 330+ digitized font (both in True Type and Open Type) designed by Basudeo Ram Khalkho himself. Some fonts are listed in comparison table and '*KuruxBanna Tirkey*' font used in this proposal.

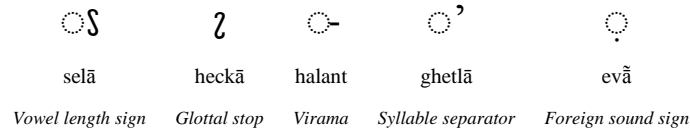### 3. Writing System
3.1 Script Name

There are two main scripts for Kurukh: Kurux Banna and Tolong Siki. Both the scripts are also known as Kurukh Lipi. But the original name of this script is *Kũṛux Bannā*. The word *Bannā* refers to the traditional signs that are used by the Kurukh community to decorate their homes and perform rituals. According to Basudeo Ram Khalkho, all the letters are made from the symbol called '*Ḍaṇḍā Kaṭnā*'.

3.2 Structure

Kurux Banna is an alpha syllabic writing system based on simplified Brahmi model. It is written from left to right. Consonants may have an inherent vowel; typically is pronounced /a/ or /ə/, normally never occurs in final position. The script has conjunctions but *virama* also use to mute the inherent vowel. There is a font has a cursive form (ꕩ, ꕩ, ꕝ, ꕞ), some books call it a small casing letter. But this is nothing more than a glyphic variation.

3.3 Scripts

There are 12 vowel letters '*Sarah Toṛ*' ଝଡ଼ ଯାଇ:

ଝ	ଝା	୰	ଖ	ଡ	ଡ	ଝ	ଝ	ଝା	ଝା	ଝ̇	ଝ̊
a	ā	i	ī	u	ū	e	ai	o	au	aṁ	aṃ

- Letter ଝ *a* having vowel carrier property.

There are 11 vowel signs '*Sarah Cinhā*' ଝଡ଼ ଚିଉଏଇ:

○୲	୮○	○୩	○୲	○୲	○୩	○୲	○୮	○୲	○̇	○̊
-ā	-i	-ī	-u	-ū	-e	-ai	-o	-au	ṭippā	candoṭippā

- Sign ○̇ *ṭippā* is an ANUSVARA sign of this script. Its value are /-ŋ,-ɲ,-ŋ,-n,-m/. It sits only on top of the base letter.
  ଝ̇୲୲୰ /ment/, ୕୲ଚ /ʧeɳʈ/, ୰̇ଡ /pəɳʧ/, ୰̇୰ /kəŋk/, ଝ̇ଝ୲ଯ /ʤʰumməpā/

- Sign ○̊ *candoṭippā* is another nasalization mark /õ/ akin to Devanagari *anunāsika*. Its position is same like sign *ṭippā*.
  ଝ̊ଡଯ /ãɽənā/, ୰̊୲ଯ /ʧẽːp/, ଚ̊୲ଡ୲ଚ /gũɽəxi/

There are 39 consonants '*Harah Toṛ*' ଚଡ଼ ଯାଇ:

୕	ଯ	୨	ୠ	୪
ka	kha	ga	gha	ṅa
୕	ଦ	୩	୪	୯
ca	cha	ja	jha	ña
୨	ଥ	ଯ	୰	୰
ṭa	ṭha	ḍa	ḍha	ṇa
୮	ଥ	୕	୪	୰
ta	tha	da	dha	na
୪	୫	୪	୪	ଝ
pa	pha	ba	bha	ma
୪	୰	୯	୲	୮
ya	ra	la	va	śa
୰	୪	୯	୪	୮
ṣa	sa	ha	kṣa	tra
୫	୯	୬	୰	
jña	ṛa	ṛha	xa	

- Letters: ୰ *ṇa*, ୮ *śa*, ୰ *ṣa*, ୪ *kṣa*, ୮ *tra*, ୫ *jña* are for loanwords.
- Letters: ୪ *kṣa* (क्ष), ୮ *tra* (त्र) and ୫ *jña* (ज्ञ) are ligatures.

There are 05 various signs *'Cinhā'* ᱨᱜᱩ᱑ᱮ᱐:

◌꠨	ꠢ	◌-	◌꠰	◌꠆
selā	heckā	halant	ghetlā	evẽ
Vowel length sign	*Glottal stop*	*Virama*	*Syllable separator*	*Foreign sound sign*

- Sign ◌꠨ *selā* is the prolongation /◌:/sign of this script. It comes after the letter or vowel sign but comes before *ṭippā* and *candoṭippā* :
  ꠇ꠨ /kə:/, ꠞ꠨ /ki:/, ꠇꠤ꠨ /kī:/, ꠇꠥ꠨ /ku:/, ꠇꠥ꠨ /kū:/, ꠇꠦ꠨ /ke:/, ꠇ꠪꠨ /kai:/, ꠇꠧ꠨ /ko:/, ꠇ꠬꠨ /kau:/,
  ꠇꠌ꠨ /kə̃:/, ꠞꠌ꠨ /kĩ:/, ꠇꠌ꠨ /kĩ̄:/, ꠇꠌ꠨ /kũ:/, ꠇꠌ꠨ /kū̃:/, ꠇꠌ꠨ /kẽ:/, ꠇꠌ꠨ /kaĩ:/, ꠇꠌ꠨ /kõ:/, ꠇꠌ꠨ /kaũ:/,
  ꠇꠌ꠨ /kə:ŋ/, ꠞꠌ꠨ /ki:ŋ/, ꠇꠌ꠨ /kī:ŋ/, ꠇꠌ꠨ /ku:ŋ/, ꠇꠌ꠨ /kī:ŋ/, ꠇꠌ꠨ /ke:ŋ/, ꠇꠌ꠨ /kai:ŋ/, ꠇꠌ꠨ /ko:ŋ/, ꠇꠌ꠨ /kau:ŋ/

- ꠢ *heckā* is the glottal stop /◌ʔ/ of this script. It comes after the letter or signs:
  ꠇꠢ /kəʔ/, ꠞꠢ /kiʔ/, ꠇꠢ /kīʔ/, ꠇꠢ /kuʔ/, ꠇꠢ /kūʔ/, ꠇꠢ /keʔ/, ꠇꠢ /kaiʔ/, ꠇꠢ /koʔ/, ꠇꠢ /kauʔ/,
  ꠇ꠨ꠢ /kə:ʔ/, ꠞ꠨ꠢ /ki:ʔ/, ꠇ꠨ꠢ /kī:ʔ/, ꠇ꠨ꠢ /ku:ʔ/, ꠇ꠨ꠢ /kū:ʔ/, ꠇ꠨ꠢ /ke:ʔ/, ꠇ꠨ꠢ /kai:ʔ/, ꠇ꠨ꠢ /ko:ʔ/, ꠇ꠨ꠢ /kau:ʔ/

- Sign ◌- *halant* is a ᴠɪʀᴀᴍᴀ sign of this script. It is used to make ligature and conjunctions. It never comes with a letter, always brings two letters together and sits in the middle of them.
  Ligatures:

ꠇ *kṣa*	<ꠇ KA	◌- VIRAMA	ꠡ SSA>,
ꠉ *jña*	<ꠈ JA	◌- VIRAMA	ꠍ NYA>,
ꠈ *tra*	<ꠎ TA	◌- VIRAMA	ꠞ RA>

  Conjunctions:

ꠇꠇ *kka*	<ꠇ KA	◌- VIRAMA	ꠇ KA>,
ꠉꠉ *jja*	<ꠉ CA	◌- VIRAMA	ꠉ CA>,
ꠎꠎ *tta*	<ꠎ TA	◌- VIRAMA	ꠎ TA>

It looks like Hyphen but its function is different. Hyphen is separately used in orthography.

- Sign ◌꠰ *ghetlā* is a syllable boundary within a word. It may be unified with ᴀᴘᴏsᴛʀᴏᴘʜᴇ U+0027.

ꠛꠕꠔꠧ /pərdo/	ꠛꠕꠔꠞ꠰ꠧ /pərd-o/,
ꠛꠅꠘꠣ /banna:/	ꠛꠅ꠰ꠘꠣ /ban-na:/

- Sign ◌꠆ *evẽ* is a ɴᴜᴋᴛᴀ sign of this script. It is used for writing sounds that are not presented by a unique character, such as specific sounds and sounds that occur in Hindi-Urdu loanwords. This sign shown as ◌꠆ in Fig.3, due to printed issue.
  Examples:

ꠇ *qa*	<ꠇ KA	◌꠆ NUKTA>,
ꠉ *ɣa*	<ꠉ GA	◌꠆ NUKTA>,
ꠈ *za*	<ꠈ JA	◌꠆ NUKTA>,
ꠚ *fa*	<ꠚ PHA	◌꠆ NUKTA>

There are no script-specific signs of punctuation; conventional Latin signs are commonly used. [see fig.3]

.	;	,	–	?	!
gahlā ṭuṛā	miclā	ucrī ṭuṛā	pacā	paīkā	isgā
Full Stop	*Semi Colon*	*Comma*	*Hyphen*	*Question Mark*	*Exclamation*
' '	" "	( )	{ }	[ ]	
kaṭi ḍelā	laṭi ḍelā	kaṭi jalā	caṭi jalā	laṭi jalā	
Single Quotes	*Double Quotes*	*Parenthese*	*Braces*	*Brackets*	

There is a full set of decimal digits '*Ganatī*' ຄ຺ານາ: [see fig.4]

0	1	ළ	ð	ㄠ	ᄃ	P	⦉	ŋ	℮
nidī	ond	ẽṛ	mūnd	nāx	pance	soy	say	ax	nay
0	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*

4. Usage

The first school '*Parha Adivasi Bal Vikash Loorkuriya*' was established in 1999 at Mudma, Jharkhand. There Kurukh language and Kurux Banna are the medium of instruction. Another school '*Utkramit Prāthamik Vidhyālay Śaharberā*' established in 2018-19 at Saharbera, Jharkhand [see fig.29]. The first school '*Addiyar's Kurukh Loorkuriya*' in Odisha opened in Kalma of Rayagada district [see fig.30]. Along with this, Kurux Banna is being taught like Karanjia Primary School in many Government schools of Odisha. Many social institutions also run classes for adults such as: Kurukh Dara Parha, Addi Dharma Parha Manda and Raji Parha Sarna Prathna Sabha Bharat, Ranchi, etc. [see fig.33]

Kurux Banna is currently used in writing and print for various purposes, as described below:

- **Educational Materials:** the first primer '*Kũṛux Bannā Lipi Arā Bakka Gaṛhan Part-1*' was published in 1991 by Basudeo Khalkho [see fig.10, 11, 12]. Another primer '*Kũṛux Lipi Ṭuṛnā Paṛhnā*' was published in 1995 by the same author. These books are in handwritten form [see fig.13, 14, 15]. First digitized primer '*Kũṛux Lipi Ṭuṛnā Bācnā*'(ừᴊᴇᴊᴠ ᴇᴜ-ᴠᴀ ᴇᴜᴠᴀ-ᴇᴀᴏᴠᴀ) is written by Basudeo Khalkho in 2012 [see fig.1, 2].One more primer '*Kũṛux Bannā Axaā*'(ừᴊᴇᴊᴠ ᴇᴜ-ᴠᴀ ᴀᴀᴏᴀ) is compiled by Ramchandra Xalxo in 2018. [see fig.7, 8, 9]

- **Newspaper:** '*Pāṛhā Rājī*' (ᴀᴇᴇᴀ ᴀᴀᴇᴀ) is a Kurukh weekly newspaper runs by *All India Kurukh Parha Yubak Sangh* used Kurux Banna.[see fig.23]

- **Magazine:** first Kurukh magazine '*Kũṛux Bijo Binko*' (ừᴊᴇᴊᴠ ᴀᴇᴀ ᴇᴀᴜᴏᴀ/କୁଡ଼ୁଖ ବିଜୋ ବିନ୍କୋ) published in 2016 written in both Odia and Kurux Banna script. Another magazine '*Kũṛux Cambī Atxā*' (ừᴊᴇᴊᴠ ᴇᴜᴇᴀ ᴀᴀᴜᴀ) published in 2018. [see fig.22(a), 22(b)]

- **Ethnological works:** one book '*Mukkā Sendrā*' (ᴀᴀᴜᴀ ừᴀᴇᴀ) was published in 2013 about historical background of Kurukh people. Karamdev Kujur's '*Karmā-Vrat Gahī Mahimā*'(कर्मा-व्रत गही महिमा/ᴏᴀᴜᴀ-ᴇᴀᴜ ᴇᴀ ᴀᴀᴇᴀ) is a book based on Kurukh culture and folklore published in 2009. [see fig.24]

- **Literary works:** one prose '*Kũṛux Khīrī Arā Katthṭūṛ*'(ừᴊᴇᴊᴠ ᴇᴀᴏᴀ ᴀᴇᴀ ᴏᴀᴜᴇᴀᴇ) published in 2017. [see fig.25]

- **Linguistic works:** a linguistic book '*Kũṛux (Orāõ) Bhāṣā Śikṣaṇ Pustikā*'(କୁଡ଼ୁଖ (ଓରାଓଁ) ଭାଷା ଶିକ୍ଷଣ ପୁସ୍ତିକା) is published by Academy of Tribal Languages & Culture, government of Odisha in 2015. It is written in Odia script, compiled by Dhaneswar Kerketta and Ramchandra Khalkho.

- **Digital Resources:** An Android Application '*Kurukh Keyboard*' is available in Google Playstore. [see fig.47]

- **Workshops:** Many workshops still conducting by the various Kurukh associations throughout the years in Odisha, in India and in other countries states also. [see fig.46]

- **Other usage:** People are using the Kurux Banna in their rituals, walls, visiting card, invitation card, pamphlets, idol descriptions, posters, banner, book covers and sign boards. etc. [see fig.26, 28, 34, 35]

5. Historical Forms

Kurux Banna was revised in 1995 and 1998. Initially (in 1991) it did not have ᱚ NGA, ᱮ NYA, ᱛ NNA, ᱝ SSA, ᱠ XA, ᱮ- VIRAMA and ᱚ̊ CANDOTIPPA. Which were included in 1995. There was some change in the signs of 1991; the position of ᱚ· *anusvara* was different. An additional symbol was ᱚ: *visarga* which was removed in 1995. The appearance of many letters and signs has been changed. Below was a comparison of the present letters with the letters of 1991:

CURRENT		*1991*
ᱛ A		ᱛ
ᱩ I		ᱬ
ᱪ II		ᱭ
ᱣ U		ᱮ
ᱣ UU		ᱮ
ᱯ E		ᱯ
ᱰ AI		ᱰ

CURRENT		*1991*
ᱚǀ -AA		ᱚǀ
ᱛᱚ -I		ᱛᱚ
ᱚᱡ -II		ᱚᱡ
ᱚᱤ -U		ᱚᱤ
ᱚᱥ -UU		ᱚᱥ
ᱚᱦ -E		ᱚᱧ
ᱚᱨ -AI		ᱚᵀ
ᱚᱪ -O		ᱚᱪ
ᱚᱫ -AU		ᱚᵀ
ᱚ̇ ANUSVARA		ᱚ·
ᱚ̊ CANDOTIPPA		–
ᱥ SELA		ᱤ
ᱦ HECHKA		ᱨ
ᱧ NUKTA		–
ᱚ- VIRAMA		–

	CURRENT		1991
ഩ	KA	ഩ	
ല	KHA	ല	
ച	GA	ച	
ഒ	GHA	ഒ	
ౙ	NGA	-	
౮	CA	౮	
ᱯ	CHA	ᱯ	
Ħ	JA	ℋ	
ℋ	JHA	ᵱ	
℃	NYA	-	
౭	TTA	౭	
౭	TTHA	౪	
४	DDA	४	
Ø	DDHA	ঙ	
ඟ	NNA	-	
౧	TA	∩	
౨	THA	౨	
౮	DA	౮	
ಠ	DHA	ಠ	
౮	NA	౮	
ℵ	PA	ℵ	
ℝ	PHA	ℛ	
฿	BA	฿	
ℬ	BHA	ℬ	
ม	MA	ม	
ษ	YA	ษ	
℈	RA	℈	
℧	LA	℧	
⊐	VA	Ɇ	
౭	SHA	౭	
℧	SSA	-	
℟	SA	℟	
ℰ	HA	ℰ	
℮	RRA	℮	
ঙ	RHA	ঙ	
ℵ	XA	-	

6. Proposed Unicode Repertoire

The proposed Unicode repertoire for 'Kurux Banna' contains of 68 characters: 7 vowels, 37 consonants, 5 various signs and 10 digits.

6.1 Vowel

Glyph	Unicode Character name	Dev	Odia	Ben
೩	KURUX BANNA LETTER A	अ	ଅ	অ
൩	KURUX BANNA LETTER I	इ	ଇ	ই
൩	KURUX BANNA LETTER II	ई	ଈ	ঈ
�	KURUX BANNA LETTER U	उ	ଉ	উ
൬	KURUX BANNA LETTER UU	ऊ	ଊ	ঊ
൩	KURUX BANNA LETTER E	ए	ଏ	এ
൩	KURUX BANNA LETTER AI	ऐ	ଐ	ঐ

6.2 Consonants

Glyph	Unicode Character name	Dev	Odia	Ben
൩	KURUX BANNA LETTER KA	क	କ	ক
൧	KURUX BANNA LETTER KHA	ख	ଖ	খ
൩	KURUX BANNA LETTER GA	ग	ଗ	গ
൩	KURUX BANNA LETTER GHA	घ	ଘ	ঘ
൩	KURUX BANNA LETTER NGA	ङ	ଙ	ঙ
൩	KURUX BANNA LETTER CA	च	ଚ	চ
൩	KURUX BANNA LETTER CHA	छ	ଛ	ছ
൩	KURUX BANNA LETTER JA	ज	ଜ	জ
൩	KURUX BANNA LETTER JHA	झ	ଝ	ঝ
൩	KURUX BANNA LETTER NYA	ञ	ଞ	ঞ
൩	KURUX BANNA LETTER TTA	ट	ଟ	ট
൩	KURUX BANNA LETTER TTHA	ठ	ଠ	ঠ
൩	KURUX BANNA LETTER DDA	ड	ଡ	ড
൩	KURUX BANNA LETTER DDHA	ढ	ଢ	ঢ
൩	KURUX BANNA LETTER NNA	ण	ଣ	ণ
൩	KURUX BANNA LETTER TA	त	ତ	ত
൩	KURUX BANNA LETTER THA	थ	ଥ	থ
൩	KURUX BANNA LETTER DA	द	ଦ	দ
൩	KURUX BANNA LETTER DHA	ध	ଧ	ধ
൩	KURUX BANNA LETTER NA	न	ନ	ন

Glyph	Unicode Character name	Dev	Odia	Ben
ᱜ	KURUX BANNA LETTER PA	प	ପ	প
ᱛ	KURUX BANNA LETTER PHA	फ	ଫ	ফ
ᱝ	KURUX BANNA LETTER BA	ब	ବ	ব
ᱞ	KURUX BANNA LETTER BHA	भ	ଭ	ভ
ᱢ	KURUX BANNA LETTER MA	म	ମ	ম
ᱭ	KURUX BANNA LETTER YA	य	ଯ	য়
ᱴ	KURUX BANNA LETTER RA	र	ର	র
ᱲ	KURUX BANNA LETTER LA	ल	ଲ	ল
ᱨ	KURUX BANNA LETTER VA	व	ଵ	ৱ
ᱚ	KURUX BANNA LETTER SHA	श	ଶ	শ
ᱣ	KURUX BANNA LETTER SSA	ष	ଷ	ষ
ᱮ	KURUX BANNA LETTER SA	स	ସ	স
ᱩ	KURUX BANNA LETTER HA	ह	ହ	হ
ᱬ	KURUX BANNA LETTER RRA	ड़	ଡ଼	ড়
ᱶ	KURUX BANNA LETTER RHA	ढ़	ଢ଼	ঢ়
ᱰ	KURUX BANNA LETTER XA	ख़	ଖ଼	খ়
ᱲ	KURUX BANNA LETTER HECHKA	-	-	-

6.3 Vowel Signs

Glyph	Unicode Character name	Dev	Odia	Ben
◌ा	KURUX BANNA LETTER SIGN AA	◌ा	◌ା	◌া
ि◌	KURUX BANNA LETTER SIGN I	ि◌	ି◌	ি◌
◌ी	KURUX BANNA LETTER SIGN II	◌ी	◌ୀ	◌ী
◌ु	KURUX BANNA LETTER SIGN U	◌ु	◌ୁ	◌ু
◌ू	KURUX BANNA LETTER SIGN UU	◌ू	◌ୂ	◌ূ
◌े	KURUX BANNA LETTER SIGN E	◌े	ୋ◌	ে◌
◌ै	KURUX BANNA LETTER SIGN AI	◌ै	ୈ◌	ৈ◌
◌ो	KURUX BANNA LETTER SIGN O	◌ो	ୋ◌ା	ে◌া
◌ौ	KURUX BANNA LETTER SIGN AU	◌ौ	ୌ◌	ৌ◌

6.4 Various Signs

Glyph	Unicode Character name	Dev	Odia	Ben
◌̇	KURUX BANNA SIGN ANUSVARA	◌̇	◌ͦ	◌ͦ
◌̊	KURUX BANNA SIGN CANDOTIPPA	◌̆	◌̆	◌̆
◌ᶴ	KURUX BANNA SIGN SELA	–	–	–
◌̣	KURUX BANNA SIGN NUKTA	◌̣	◌̣	◌̣
◌̵	KURUX BANNA SIGN VIRAMA	◌̖	◌̖	◌̖

6.5 Digits

There is full set of decimal digits: 0 ZERO, 1 ONE, Ҁ TWO, Ӡ THREE, Ҵ FOUR, ᒑ FIVE, ᑭ SIX, � SEVEN, Ꝯ EIGHT, ᑯ NINE.

6.6 Punctuation

There are no script-specific punctuation marks. Latin marks, such as : . ,‹› ; _'' () ?\ / - and ! are used.

7. Collation

The collation order is as follows:

< ꒐ A < ꒑ I < ꒒ II < ꒓ U < ꒔ UU < ꒕ E < ꒖ AI < ꒗ KA < ꒘ KHA < ꒙ GA < ꒚ GHA < ꒛ NGA < ꒜ CA < ꒝ CHA < ꒞ JA < ꒟ JHA < ꒠ NYA < ꒡ TTA < ꒢ TTHA < ꒣ DDA < ꒤ DDHA < ꒥ NNA < ꒦ TA < ꒧ THA < ꒨ DA < ꒩ DHA < ꒪ NA < ꒫ PA < ꒬ PHA < ꒭ BA < ꒮ BHA < ꒯ MA < ꒰ YA < ꒱ RA < ꒲ LA < ꒳ VA < ꒴ SHA < ꒵ SSA < ꒶ SA < ꒷ HA < ꒸ RRA < ꒹ RHA < ꒺ XA < ꒻ HECHKA < ◌ᶥ SIGN AA < ᶠ◌ SIGN I < ◌ᶠ SIGN II < ◌ᶩ SIGN U < ◌ᶩ SIGN UU < ◌ᶩ SIGN E < ◌ᶩ SIGN AI < ◌ᶥ SIGN O < ◌ᶥ SIGN AU < ◌̇ SIGN ANUSVARA < ◌̊ SIGN CANDOTIPPA < ◌ᶴ SIGN SELA < ◌̣ SIGN NUKTA < ◌̵ SIGN VIRAMA < 0 DIGIT ZERO < 1 DIGIT ONE < Ҁ DIGIT TWO < Ӡ DIGIT THREE < Ҵ DIGIT FOUR < ᒑ DIGIT FIVE < ᑭ DIGIT SIX < Ꝯ DIGIT SEVEN < ᑯ DIGIT EIGHT < ᑯ DIGIT NINE

8. Linebreaking

Linebreaks may occur after an orthographic syllable. Hyphens or other marks indicating continuance are not used.

9. Acknowledgements

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- Roshan Toppo
- Sankar Oraon Tirkey

10. Character Data

a. Character Properties

In the format of `UnicodeData.txt`:

```
xxx00;KURUX BANNA LETTER A;Lo;0;L;;;;;N;;;;;
xxx01;KURUX BANNA LETTER I;Lo;0;L;;;;;N;;;;;
xxx02;KURUX BANNA LETTER II;Lo;0;L;;;;;N;;;;;
xxx03;KURUX BANNA LETTER U;Lo;0;L;;;;;N;;;;;
xxx04;KURUX BANNA LETTER UU;Lo;0;L;;;;;N;;;;;
xxx05;KURUX BANNA LETTER E;Lo;0;L;;;;;N;;;;;
xxx06;KURUX BANNA LETTER AI;Lo;0;L;;;;;N;;;;;
xxx07;KURUX BANNA LETTER KA;Lo;0;L;;;;;N;;;;;
xxx08;KURUX BANNA LETTER KHA;Lo;0;L;;;;;N;;;;;
xxx09;KURUX BANNA LETTER GA;Lo;0;L;;;;;N;;;;;
xxx0A;KURUX BANNA LETTER GHA;Lo;0;L;;;;;N;;;;;
xxx0B;KURUX BANNA LETTER NGA;Lo;0;L;;;;;N;;;;;
xxx0C;KURUX BANNA LETTER CA;Lo;0;L;;;;;N;;;;;
xxx0D;KURUX BANNA LETTER CHA;Lo;0;L;;;;;N;;;;;
xxx0E;KURUX BANNA LETTER JA;Lo;0;L;;;;;N;;;;;
xxx0F;KURUX BANNA LETTER JHA;Lo;0;L;;;;;N;;;;;
xxx10;KURUX BANNA LETTER NYA;Lo;0;L;;;;;N;;;;;
xxx11;KURUX BANNA LETTER TTA;Lo;0;L;;;;;N;;;;;
xxx12;KURUX BANNA LETTER TTHA;Lo;0;L;;;;;N;;;;;
xxx13;KURUX BANNA LETTER DDA;Lo;0;L;;;;;N;;;;;
xxx14;KURUX BANNA LETTER DDHA;Lo;0;L;;;;;N;;;;;
xxx15;KURUX BANNA LETTER NNA;Lo;0;L;;;;;N;;;;;
xxx16;KURUX BANNA LETTER TA;Lo;0;L;;;;;N;;;;;
xxx17;KURUX BANNA LETTER THA;Lo;0;L;;;;;N;;;;;
xxx18;KURUX BANNA LETTER DA;Lo;0;L;;;;;N;;;;;
xxx19;KURUX BANNA LETTER DHA;Lo;0;L;;;;;N;;;;;
xxx1A;KURUX BANNA LETTER NA;Lo;0;L;;;;;N;;;;;
xxx1B;KURUX BANNA LETTER PA;Lo;0;L;;;;;N;;;;;
xxx1C;KURUX BANNA LETTER PHA;Lo;0;L;;;;;N;;;;;
xxx1D;KURUX BANNA LETTER BA;Lo;0;L;;;;;N;;;;;
xxx1E;KURUX BANNA LETTER BHA;Lo;0;L;;;;;N;;;;;
xxx1F;KURUX BANNA LETTER MA;Lo;0;L;;;;;N;;;;;
xxx20;KURUX BANNA LETTER YA;Lo;0;L;;;;;N;;;;;
xxx21;KURUX BANNA LETTER RA;Lo;0;L;;;;;N;;;;;
xxx22;KURUX BANNA LETTER LA;Lo;0;L;;;;;N;;;;;
xxx23;KURUX BANNA LETTER VA;Lo;0;L;;;;;N;;;;;
xxx24;KURUX BANNA LETTER SHA;Lo;0;L;;;;;N;;;;;
xxx25;KURUX BANNA LETTER SSA;Lo;0;L;;;;;N;;;;;
xxx26;KURUX BANNA LETTER SA;Lo;0;L;;;;;N;;;;;
xxx27;KURUX BANNA LETTER HA;Lo;0;L;;;;;N;;;;;
xxx28;KURUX BANNA LETTER RRA;Lo;0;L;;;;;N;;;;;
xxx29;KURUX BANNA LETTER RHA;Lo;0;L;;;;;N;;;;;
xxx2A;KURUX BANNA LETTER XA;Lo;0;L;;;;;N;;;;;
xxx2B;KURUX BANNA LETTER HECHKA;Lo;0;L;;;;;N;;;;;
xxx2C;KURUX BANNA LETTER SIGN AA;Mc;0;L;;;;;N;;;;;
xxx2D;KURUX BANNA LETTER SIGN I;Mc;0;L;;;;;N;;;;;
xxx2E;KURUX BANNA LETTER SIGN II;Mc;0;L;;;;;N;;;;;
xxx2F;KURUX BANNA LETTER SIGN U;Mc;0;L;;;;;N;;;;;
xxx30;KURUX BANNA LETTER SIGN UU;Mc;9;L;;;;;N;;;;;
xxx31;KURUX BANNA LETTER SIGN E;Mc;0;L;;;;;N;;;;;
xxx32;KURUX BANNA LETTER SIGN AI;Mc;0;L;;;;;N;;;;;
xxx33;KURUX BANNA LETTER SIGN O;Mc;0;L;;;;;N;;;;;
xxx34;KURUX BANNA LETTER SIGN AU;Mc;0;L;;;;;N;;;;;
xxx35;KURUX BANNA SIGN ANUSVARA;Mn;0;NSM;;;;;N;;;;;
xxx36;KURUX BANNA SIGN CANDOTIPPA;Mn;0;NSM;;;;;N;;;;;;
xxx37;KURUX BANNA SIGN SELA;Mn;0;NSM;;;;;N;;;;;
xxx38;KURUX BANNA SIGN NUKTA;Mn;7;NSM;;;;;N;;;;;
xxx39;KURUX BANNA SIGN VIRAMA;Mn;9;NSM;;;;;N;;;;;
xxx40;KURUX BANNA DIGIT ZERO;Nd;0;L;;0;0;0;N;;;;;
xxx41;KURUX BANNA DIGIT ONE;Nd;0;L;;1;1;1;N;;;;;
xxx42;KURUX BANNA DIGIT TWO;Nd;0;L;;2;2;2;N;;;;;
xxx43;KURUX BANNA DIGIT THREE;Nd;0;L;;3;3;3;N;;;;;
xxx44;KURUX BANNA DIGIT FOUR;Nd;0;L;;4;4;4;N;;;;;
xxx45;KURUX BANNA DIGIT FIVE;Nd;0;L;;5;5;5;N;;;;;
xxx46;KURUX BANNA DIGIT SIX;Nd;0;L;;6;6;6;N;;;;;
xxx47;KURUX BANNA DIGIT SEVEN;Nd;0;L;;7;7;7;N;;;;;
xxx48;KURUX BANNA DIGIT EIGHT;Nd;0;L;;8;8;8;N;;;;;
xxx49;KURUX BANNA DIGIT NINE;Nd;0;L;;9;9;9;N;;;;;
```

b. Linebreaking

In the format of `LineBreak.txt`:

```
xxx00..xxx2B ; AL  #  [44] KURUX BANNA LETTER A .. KURUX BANNA LETTER HECHKA
xxx2C..xxx34 ; CM  #  [09] KURUX BANNA LETTER SIGN AA .. KURUX BANNA LETTER SIGN AU
xxx35..xxx39 ; CM  #  [05] KURUX BANNA SIGN ANUSVARA .. KURUX BANNA SIGN VIRAMA
xxx40..xxx49 ; NU  #  [10] KURUX BANNA DIGIT ZERO .. KURUX BANNA DIGIT NINE
```

c. Syllabic Categories

In the format of `IndicSyllabicCategory.txt`:

```
# Indic_Syllabic_Category=Bindu
xxx35..xxx36 ;  Bindu        #  Mc  [02] KURUX BANNA SIGN ANUSVARA .. KURUX BANNA SIGN CANDOTIPPA
# Indic_Syllabic_Category=Nukta
xxx38        ;  Nukta        #  Mn  KURUX BANNA SIGN NUKTA
# Indic_Syllabic_Category=Virama
xxx39        ;  Virama       #  Mn  KURUX BANNA SIGN VIRAMA
# Indic_Syllabic_Category=Vowel_Independent
xxx00..xxx06 ;  Vowel_Independent    #  Lo  [07] KURUX BANNA LETTER A .. KURUX BANNA LETTER AI
# Indic_Syllabic_Category=Consonant_Dependent
xxx2B..xxx33 ;  Consonant_Dependent   #  Mn  [09] KURUX BANNA LETTER SIGN AA .. KURUX BANNA LETTER SIGN AU
# Indic_Syllabic_Category=Consonant
xxx07..xxx2B ;  Consonant    #  Lo  [37] KURUX BANNA LETTER KA .. KURUX BANNA LETTER HECHKA
# Indic_Syllabic_Category=Tone_Mark
xxx37        ;  Tone_Mark    #  Mn  KURUX BANNA SIGN SELA
# Indic_Syllabic_Category=Number
xxx40..xxx49 ;  Number       #  Nd  [10] KURUX BANNA DIGIT ZERO .. KURUX BANNA DIGIT NINE
```

d. Positional Categories

In the format of `IndicPositionalCategory.txt`:

```
# Indic_Positional_Category=Right
xxx2C        ; Right #  Mc  KURUX BANNA SIGN AA
xxx2E..xxx34 ; Right #  Mc  [07] KURUX BANNA LETTER SIGN II .. KURUX BANNA LETTER SIGN AU
xxx37        ; Right #  Mn  KURUX BANNA SIGN SELA
xxx39        ; Right #  Mn  KURUX BANNA SIGN VIRAMA
# Indic_Positional_Category=Left
xxx2D        ; Left  #  Mc  KURUX BANNA SIGN I
# Indic_Positional_Category=Top
xxx35..xxx36 ; Top   #  Mn  [02] KURUX BANNA SIGN ANUSVARA .. KURUX BANNA SIGN CANDOTIPPA
# Indic_Positional_Category=Bottom
xxx38        ; Bottom #  Mn  KURUX BANNA SIGN NUKTA
```

	xxx0	xxx1	xxx2	xxx3	xxx4
0	␣	␣	␣	␣	0
1	␣	␣	␣	␣	␣
2	␣	␣	␣	␣	␣
3	␣	␣	␣	␣	␣
4	␣	␣	␣	␣	␣
5	␣	␣	␣	␣	␣
6	␣	␣	␣	␣	␣
7	␣	␣	␣	␣	␣
8	␣	␣	␣	␣	␣
9	␣	␣	␣	␣	␣
A	␣	␣	␣		
B	␣	␣	␣		
C	␣	␣	␣		
D	␣	␣	␣		
E	␣	␣	␣		
F	␣	␣	␣		

Independent Vowels

xxx00	ꕥ	KURUX BANNA LETTER A
		• Also used as a LETTER carrier
xxx01	ꕪ	KURUX BANNA LETTER I
xxx02	ꕫ	KURUX BANNA LETTER II
xxx03	ꕬ	KURUX BANNA LETTER U
xxx04	ꕭ	KURUX BANNA LETTER UU
xxx05	ꕮ	KURUX BANNA LETTER E
xxx06	ꕮ	KURUX BANNA LETTER AI

Consonants

xxx07	ꕯ	KURUX BANNA LETTER KA
xxx08	ꕰ	KURUX BANNA LETTER KHA
xxx09	ꕱ	KURUX BANNA LETTER GA
xxx0A	ꕲ	KURUX BANNA LETTER GHA
xxx0B	ꕳ	KURUX BANNA LETTER NGA
xxx0C	ꕴ	KURUX BANNA LETTER CA
xxx0D	ꕵ	KURUX BANNA LETTER CHA
xxx0E	ꕶ	KURUX BANNA LETTER JA
xxx0F	ꕷ	KURUX BANNA LETTER JHA
xxx10	ꕸ	KURUX BANNA LETTER NYA
xxx11	ꕹ	KURUX BANNA LETTER TTA
xxx12	ꕺ	KURUX BANNA LETTER TTHA
xxx13	ꕻ	KURUX BANNA LETTER DDA
xxx14	ꕼ	KURUX BANNA LETTER DDHA
xxx15	ꕽ	KURUX BANNA LETTER NNA
xxx16	ꕾ	KURUX BANNA LETTER TA
xxx17	ꕿ	KURUX BANNA LETTER THA
xxx18	ꖀ	KURUX BANNA LETTER DA
xxx19	ꖁ	KURUX BANNA LETTER DHA
xxx1A	ꖂ	KURUX BANNA LETTER NA
xxx1B	ꖃ	KURUX BANNA LETTER PA
xxx1C	ꖄ	KURUX BANNA LETTER PHA
xxx1D	ꖅ	KURUX BANNA LETTER BA
xxx1E	ꖆ	KURUX BANNA LETTER BHA
xxx1F	ꖇ	KURUX BANNA LETTER MA
xxx20	ꖈ	KURUX BANNA LETTER YA
xxx21	ꖉ	KURUX BANNA LETTER RA
xxx22	ꖊ	KURUX BANNA LETTER LA
xxx23	ꖋ	KURUX BANNA LETTER VA
xxx24	ꖌ	KURUX BANNA LETTER SHA
xxx25	ꖍ	KURUX BANNA LETTER SSA
xxx26	ꖎ	KURUX BANNA LETTER SA
xxx27	ꖏ	KURUX BANNA LETTER HA
xxx28	ꖐ	KURUX BANNA LETTER RRA
xxx29	ꖑ	KURUX BANNA LETTER RHA
xxx2A	ꖒ	KURUX BANNA LETTER XA
xxx2B	ꖓ	KURUX BANNA LETTER HECHKA
		= Glottal Stop

Dependent Vowel Signs

xxx2C	◌	KURUX BANNA LETTER SIGN AA
xxx2D	◌	KURUX BANNA LETTER SIGN I
xxx2E	◌	KURUX BANNA LETTER SIGN II
xxx2F	◌	KURUX BANNA LETTER SIGN U
xxx30	◌	KURUX BANNA LETTER SIGN UU
xxx31	◌	KURUX BANNA LETTER SIGN E
xxx32	◌	KURUX BANNA LETTER SIGN AI
xxx33	◌	KURUX BANNA LETTER SIGN O
xxx34	◌	KURUX BANNA LETTER SIGN AU

Various Signs

xxx35	◌	KURUX BANNA SIGN ANUSVARA
xxx36	◌	KURUX BANNA SIGN CANDOTIPPA
xxx37	◌	KURUX BANNA SIGN SELA
xxx38	◌	KURUX BANNA SIGN NUKTA
xxx39	◌	KURUX BANNA SIGN VIRAMA

Digits

xxx40	0	KURUX BANNA DIGIT ZERO
xxx41	1	KURUX BANNA DIGIT ONE
xxx42	੫	KURUX BANNA DIGIT TWO
xxx43	੩	KURUX BANNA DIGIT THREE
xxx44	੫	KURUX BANNA DIGIT FOUR
xxx45	੫	KURUX BANNA DIGIT FIVE
xxx46	P	KURUX BANNA DIGIT SIX
xxx47	੩	KURUX BANNA DIGIT SEVEN
xxx48	੭	KURUX BANNA DIGIT EIGHT
xxx49	੨	KURUX BANNA DIGIT NINE

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New Primers:

Kũṛux Lipi Ṭuṛnā Bācnā (2012):

Fig 1: Kurux Banna script table with Latin translation. (Khalkho, 7: 2012)

Fig 2: Kurux Banna script with cursive form(small letter). (Khalkho, 51:2012)

सूचक चिन्ह– (Punctuation Marks)

चिन्ह	कुँड़ुख	हिन्दी	ओड़िआ	अंग्रेजी
○ꕱ	– सेला	– लम्बी ध्वनि	– ଲମ୍ବା ଧ୍ବନି	– (Long Phone)
○ꕤ	– हेचका	– विकारी 'अ'	– ବିକାରୀ 'ଅ'	– (Glotal Stop)
Ö	–चन्दोटिप्पा	–चन्द्र विन्दु	– ଚନ୍ଦ୍ର ବିନ୍ଦୁ	– (Nasal Vowel Index)
Ȯ	– टिप्पा	–नासिक्य स्वर सूचक	–ନାସିକ୍ୟ ସ୍ବର ସୂଚକ	– (Nasal Vowel Index)
○'	– घेतला	– शब्द खण्ड सूचक	– ଶବ୍ଦ ଖଣ୍ଡ ସୂଚକ	– (Syllable Index)
○-	– पचा	– संयोजक चिन्ह	– ସଂଯୋଜକ ଚିହ୍ନ	– (Hyphen)
○;	–मिचला –	सेमीकॉलन	– ସେମିକୋଲନ	– (Semi Colon)
○,	–उचरी टुड़ा	–अर्द्ध विराम	– ଅର୍ଦ୍ଧ ବିରାମ	–(Comma)
○.	–गहला टुड़ा	– पूर्ण विराम	– ପୂର୍ଣ୍ଣ ବିରାମ	–(Full Stop)
○?	–पईका	– प्रश्न चिन्ह	– ପ୍ରଶ୍ନ ଚିହ୍ନ	–(Question Mark)
○!	–इसगा	–विस्मय सूचक चिन्ह	– ବିସ୍ମୟ ସୂଚକ ଚିହ୍ନ	–(Exclamation)
'○'	–कटि डेला	–लघु उद्धरण चिन्ह	– ଲଘୁ ଉଦ୍ଧୃତ ଚିହ୍ନ	– (Single Quotes)
"○"	–लटि डेला	–दीर्घ उद्धरण चिन्ह	– ଦୀର୍ଘ ଉଦ୍ଧୃତ ଚିହ୍ନ	–(Double Quotes)
(○)	–कटि जला	– छोटा कोष्ठ	– ଚନ୍ଦ୍ର ବନ୍ଧନୀ	–(Small Bracket)
{○}	–चटि जला	–मझला कोष्ठ	– କୁଟୀଳ ବନ୍ଧନୀ	–(Middle Bracket)
[○]	–लटि जला	– बड़ा कोष्ठ	– ବର୍ଗ ବନ୍ଧନୀ	–(Large Bracket)
○	– एवाँ	– विदेशज ध्वनि सूचक	–ବୈଦେଶିକ ଧ୍ବନି ସୂଚକ	–(Foreign sound indicator)

गणितिक चिन्ह -(Mathematical symbol)

+	–जोड़	– जोड़ चिन्ह –	ଯୋଗ ଚିହ୍ନ	–(Addition)
−	–घटाव	– घटाव चिन्ह–	ବିୟୋଗ ଚିହ୍ନ	–(Substraction)
×	–गुणा	– गुणा चिन्ह –	ଗୁଣନ ଚିହ୍ନ	–(Multiplication)
÷	–भाग	– भाग चिन्ह –	ବିଭକ୍ତ ଚିହ୍ନ	–(Division)
=	–बराबरी	–बराबर चिन्ह–	ସମାନ ଚିହ୍ନ	– (Equator)

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Fig 3: list of punctuation marks used in Kurux Banna script. (Khalkho, 21:2012)

ॠग्बेग्ब रायग्बाकुँड्डुख़ गनती कुँडुख़ गनता कुँडुख़ गनती

Digital										
1	1	11	21	31	41	51	61	71	81	91
2	2	12	22	32	42	52	62	72	82	92
3	3	13	23	33	43	53	63	73	83	93
4	4	14	24	34	44	54	64	74	84	94
5	5	15	25	35	45	55	65	75	85	95
6	6	16	26	36	46	56	66	76	86	96
7	7	17	27	37	47	57	67	77	87	97
8	8	18	28	38	48	58	68	78	88	98
9	9	19	29	39	49	59	69	79	89	99
10	10	20	30	40	50	60	70	80	90	100

0	1	2	3	4	5	6	7	8	9	10
निदी	ओंद	एँड़	मून्द	नाख़	पंचे	सोय	सय	अख़	नय	दोय
नीदा										
निदी										
NIDI	OND	ENR	MUND	NAX	PANCHE	SOY	SAY	AX	NAY	DOY

10	20	30	40	50	60	70	80	90	100
दोय,	एन्दी,	मून्दी,	नाख़दी,	पन्दी,	सोयदी,	सयदी,	अख़दी,	नयदी,	सुड्डी
दोय,	एन्दी,	मून्दी,	नाख़दी,	पन्दी,	सोयदी,	सोयदी,	अख़दी,	नयदी,	सुड्डी
DOY	ENDI	MUNDI	NAXDI	PANDI	SOYDI	SAYDI	AXDI	NAYDI	SUDDI

Fig 4: Kurux Banna digits. (Khalkho, 55:2012)

Fig 5: shows consonant-vowel ligatures. (Khalkho, 30-31:2012)

Fig 6: Extracted from Kŭṛux Lipi Ṭuṛnā Bācnā . (Khalkho, 14-15:2012)

Kũṟux Bannā Axaā (2018):

Fig 7: Kurux Banna script table with cursive form. (Xalxo, 01: 2018)

Fig 8: Extracted from Kũ̃ṟux Bannā Axaā . (Xalxo, 03: 2018)

Fig 9: Extracted from *Kũṛux Bannā Axaā . (Xalxo, 04: 2018)*

Old Primers: (these are in handwritten from and having initial forms of Kurux Banna letters)
Kũ̱rux Bannā Lipi Arā Bakka Gaṛhan Part-1 (1991):
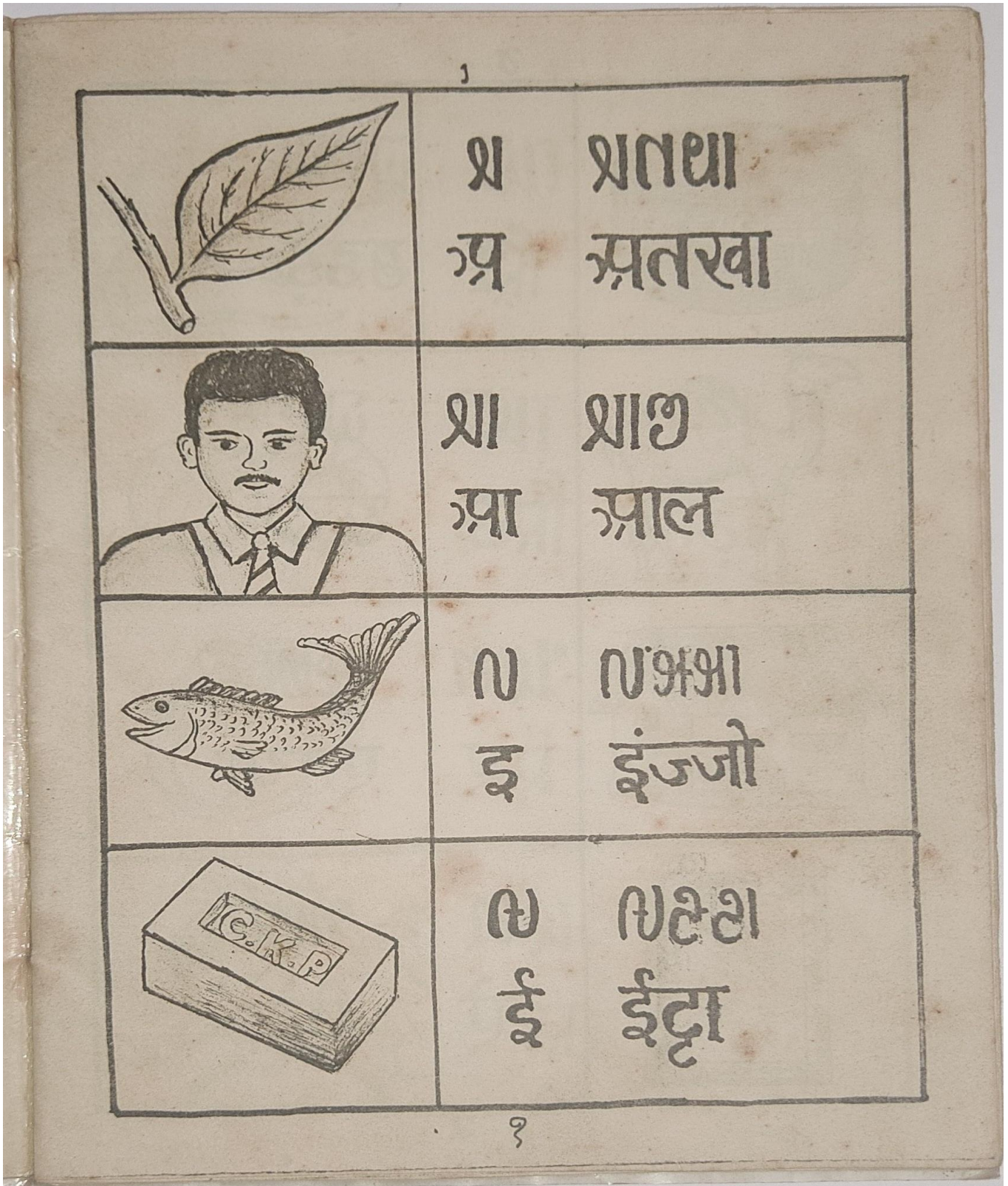
Fig 10: Extracted from Kũ̱rux Bannā Lipi Arā Bakka Gaṛhan Part-1. (Khalkho, 1: 1991)

	ꠃ ꠃꠞꠣ उ उडडु
	ꠃ ꠃꠐ ऊ ऊँट
	ꠄ ꠄꠗꠣ ए एड़पा
	ꠇ ꠇꠟꠣ ऐ ऐना

Fig 11: Extracted from Kũṛux Bannā Lipi Arā Bakka Gaṛhan Part-1. (Khalkho, 2: 1991)

११

वर्ण माला

= स्वर वर्ण

अ आ इ ई उ ऊ ए ऐ ओ औ अं अः
! (खेला) = प्लुत स्वर, ! (तला) = विकारी अ
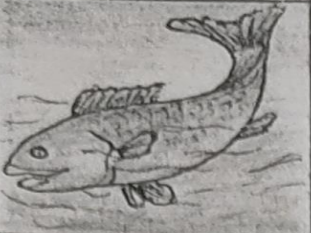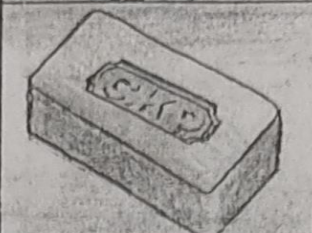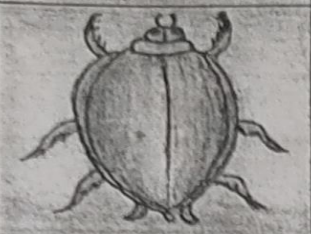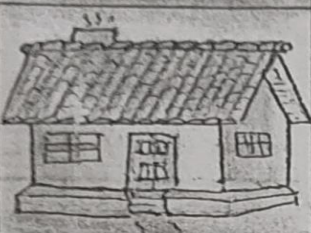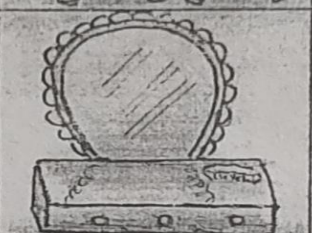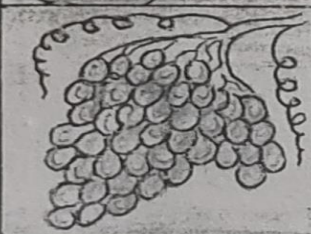
= व्यञ्जन वर्ण

क	ख	ग	घ	च	छ	ज	झ
ट	ठ	ड	ढ	त	थ	द	ध
न	प	फ	ब	भ	म	य	र
ल	व	श	स	ह	ड़	ढ़	न्न

Fig 12: Shows old form letters from Kũṛux Bannā Lipi Arā Bakka Gaṛhan Part-1. (Khalkho, 14: 1991)
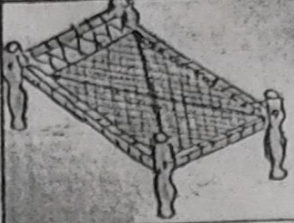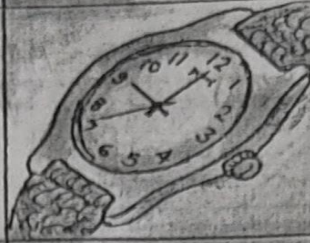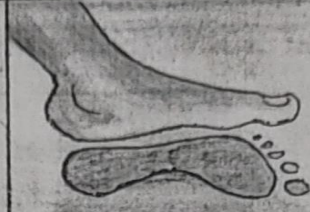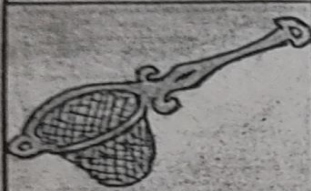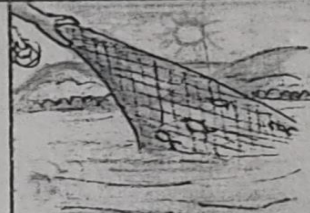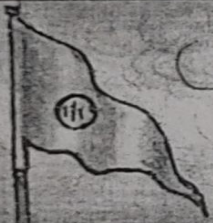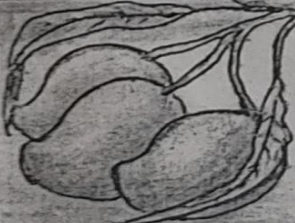
Fig 13: shows old forms of letters with Odia, Devanagari and Bengali translation. (Khalkho, 1: 1995)

Fig 14: Extracted from *Kũṛux Lipi Ṭuṛnā Paṛhnā . (Khalkho, 2: 1995)*

ก - ฑกฑฟ	ย ยฑฟ
क - कछुआ	ख - खटी
K - KACHHUA	KH - KHATI
ฆ ฑฉฝ	ฆ ฑฝฟ
ग - गदहा	घ - घड़ी
G - GADHA	GH - घड़ी
฿ -	฿ - ฿ฑฝฟ
ड़ -	चम्बी
NG -	CHAMBI
฿ - ฿ฑฟ	฿ ฿ฑฟ
छ - छकनी	ज - ज
CHH - CHHANKI	J - JALLI
฿ - ฿ฑฟ	฿ -
झ - झण्डा	ञ -
JH - JHANDA	YN -
฿ - ฿ฑฟ	฿ ฿ฑฟ
ट - टट्ख़ा	ठ - तंकू
T - TATKHHA	TH - THANK

Fig 15: Extracted from *Kŭṛux Lipi Ṭuṛnā Paṛhnā* . (Khalkho, 3: 1995)

Fig 16: shows the Kurux Banna alphabet chart. (2022)

Fig 17: shows the Kurux Banna alphabet chart. (2021)

Handwritten texts:

Author's text
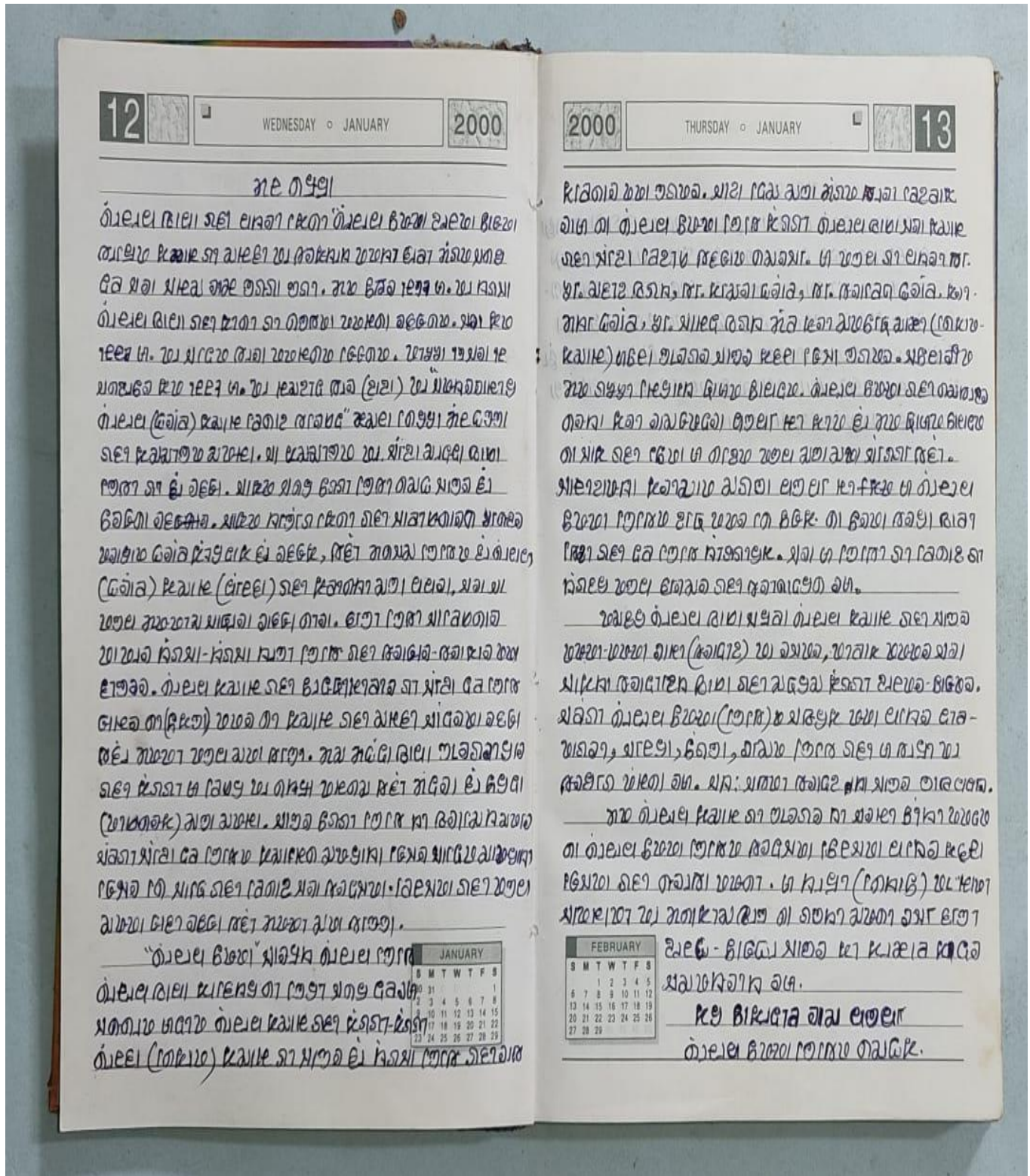
Fig 18: Shows author's diary. (2000)

Fig 19: Handwritten text of a student on topic 'Dava Ḍaharā'.

2019 NOVEMBER

October 2019

Tuesday 15

Wednesday 16

Fig 20: Diary written in Kurux Banna. (2019)

ᱯᱟᱱᱟᱠ ᱱᱮᱤ ᱫᱷᱟᱯᱟ জোগীস গহী সুগা জোগাথ গহা সুগা জ্োগীস গহী সুগা

[Body text written in Kurux Banna script]

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Fig 21: A Story 'Jogīs Gahī Sugā' written in Kurux Banna. (Khalkho, 48:2012)

Fig 22(a): Extracted from topic 'E:ŋra Katthā' of Kũṛux Cambī Atxā. (Khalko, Kha:2018)

Fig 22(b): Extracted from topic 'Nāma Arā Namhaya Katthā' of Kũṛux Cambī Atxā. (Khalko, 2:2018)
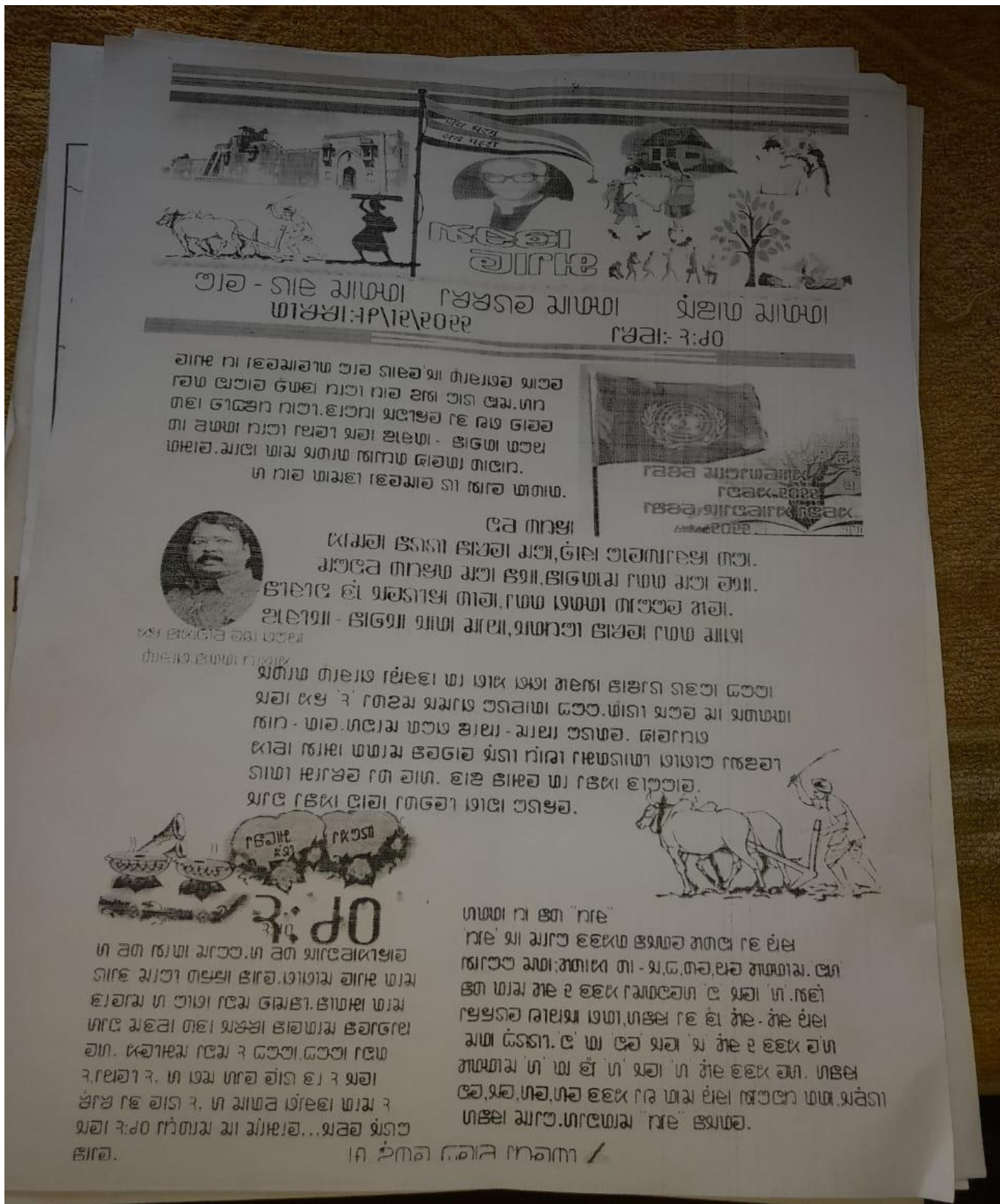
Fig 23: Shows the front page of 'Pāṛhā Rājī' newspaper. (2022)

Fig 25: Extracted from topic 'Karam Pujā' of book Kụ̃rux Khīrī Arā Katthṭụ̄r (Khalkho, 02-03:2017)

Banners:
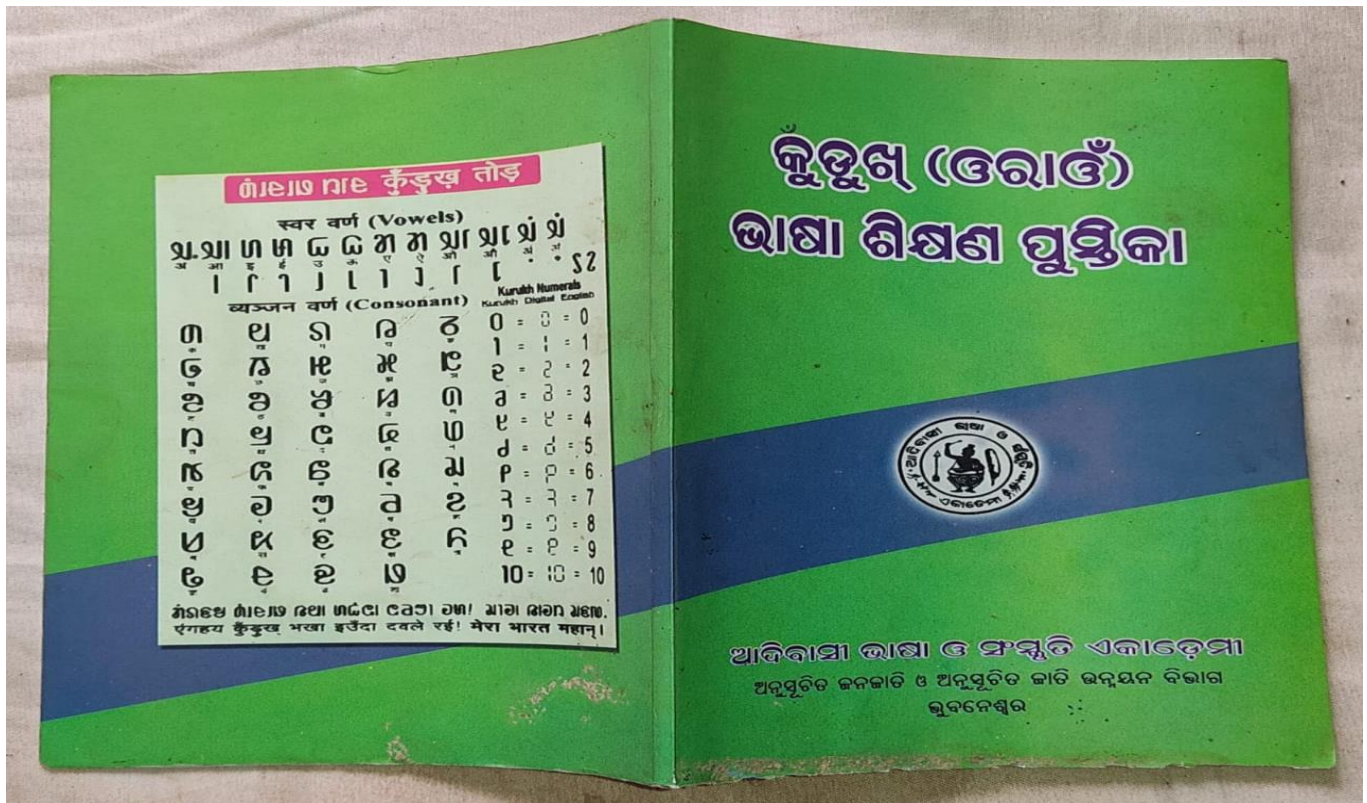

Fig 26: Kurux Banna used in various banners.

Fig 27: Kurux banna used in cover pages of various books.

Fig 28: Kurux Banna used in heading of 'News Parha Rajee' newspapers (Hindi & Odia edition). (2018)

School and Learning Institutions:

Fig 29: Pictures of Kurukh schools at Mudma (top) and Shaharbeda (bottom).(Jharkhand)

Fig 30: Picture of Kurukh school at Kalma.(Odisha)

Fig 31: Pictures of Kurukh learning Centre at Panposh.(Odisha)

Fig 32: shows other community center cum learning institution.

Fig 33: pictures of a Kurux teaching class. (Odisha, 2023)

Public spaces:
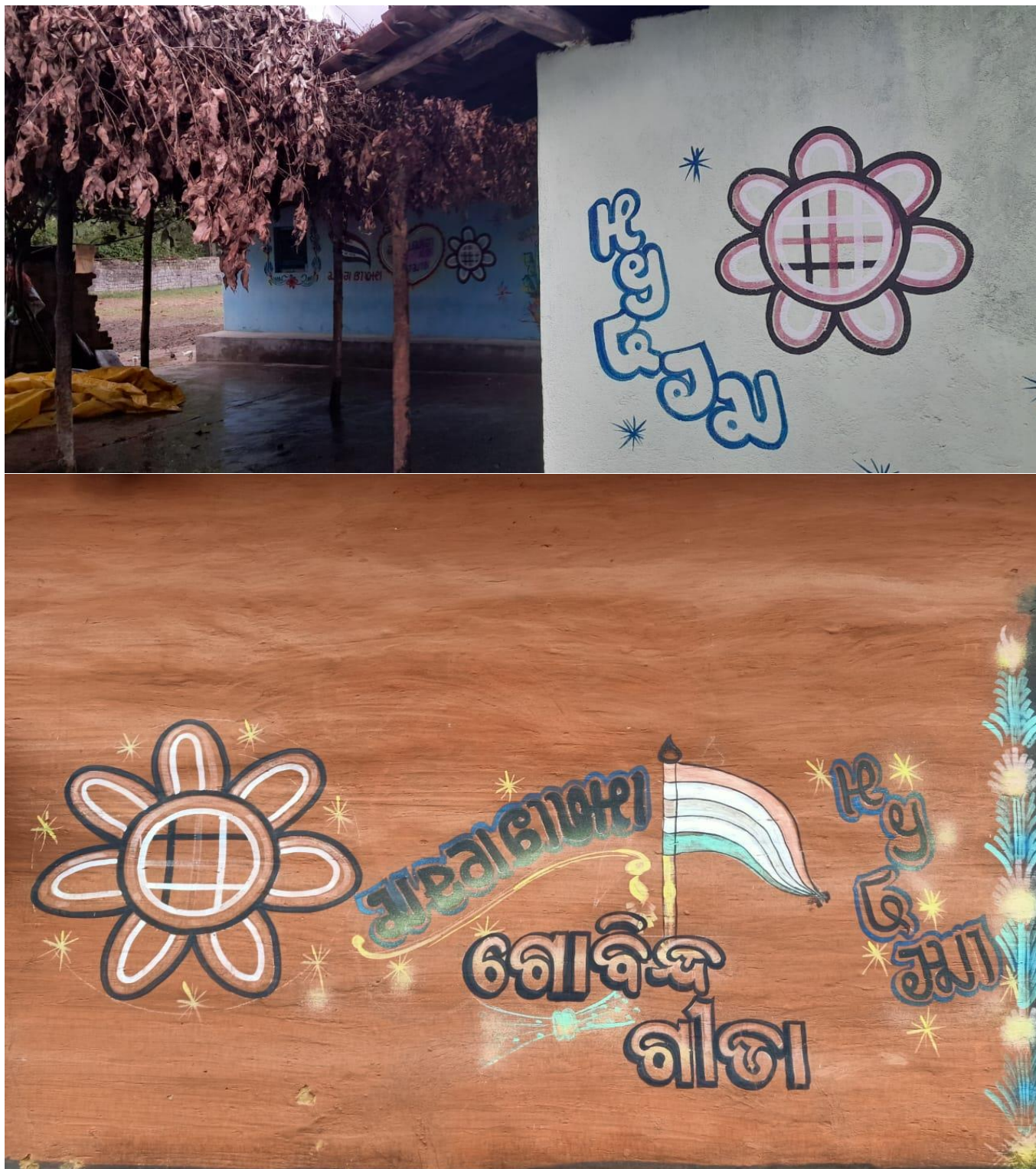
Fig 34: shows traditional wall paintings/decorations. (Odisha)

Fig 35: shows some Bride name boards.

Fig 36: Kurux Banna used in ornaments.

Fig 37: Kurux Banna used in visiting cards.(Odisha)

Fig 38: Kurux Banna used in idol of Martyr Birsa Munda. (Odisha)

Fig 39: Kurux Banna used in sign board. (Chhattisgarh)

Fig 40: Kurux Banna used in worship places.(Balimorh, Odisha)

Fig 41: Kurux Banna used in Religious community place (Mudma, Jharkhand).

Fig 42: Kurux Banna used in wedding invitation cards.

Fig 43: Kurux Banna used in community member badge. (2020)

Fig 44: Kurux Banna keyboard layout.

Fig 45: A Kurux Banna typeface dices.

Fig 46: A Kurux Banna workshop on the occasion of Sarhul puja.
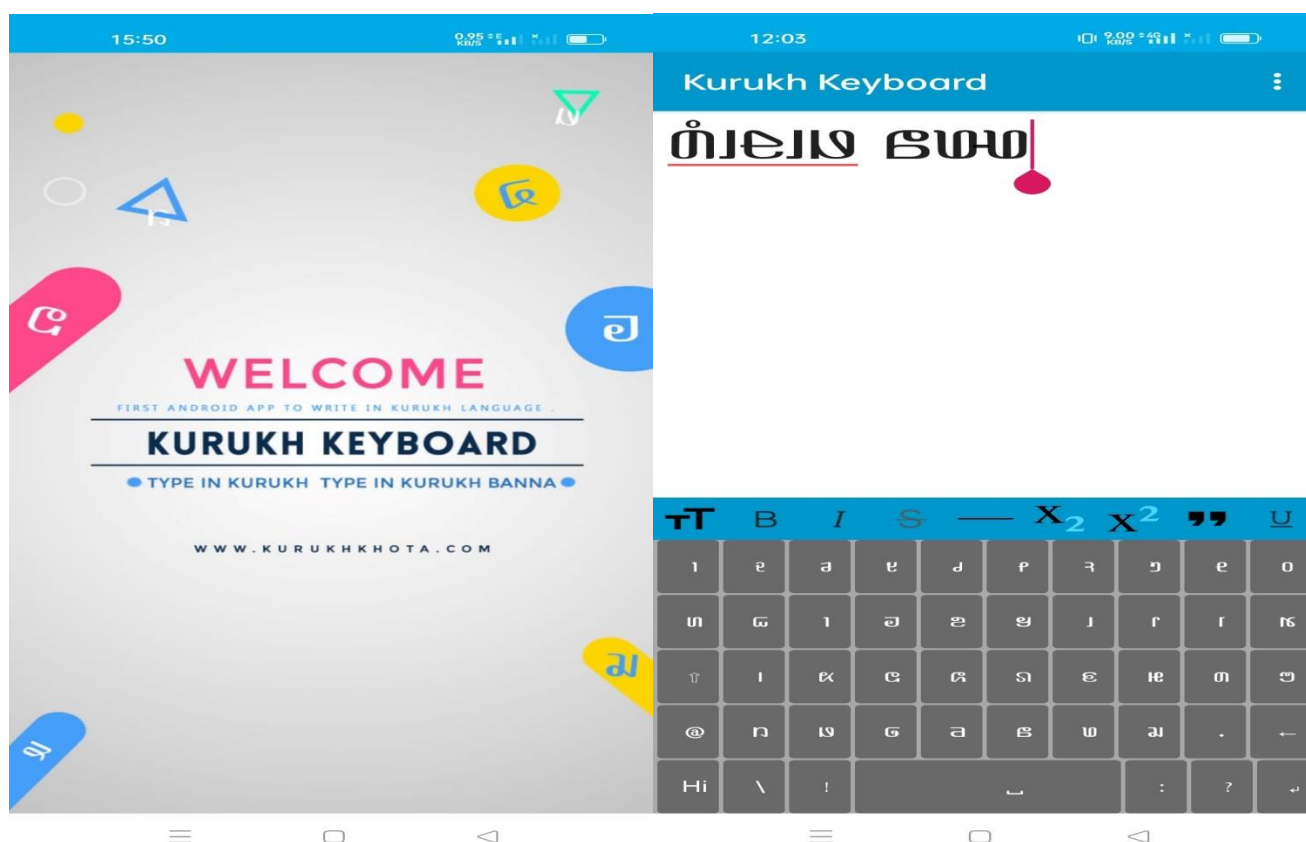
Fig 47: A Kurukh Keyboard Application.

Letter of Support from Kudukh Vikash Parishad.

ᱜᱟᱞᱟᱣ ᱨᱟᱜᱟᱫᱡ ᱜᱨᱚᱣᱜ

KUDUKH VIKASH PARISHAD
Nuagaon,Kuarmunda & Bisra,Dist.Sundargarh(Odisha)
Regd.No.SGD/2058/162/97
Head Offce: KARTIK ORAON FILD FULJHAR, MOB.9437479206

Ref. No. K.V.P.07/23..........   Date.30/04/2023......

To,
 Dr. Deborah Anderson
Technical Director
Unicode technical commitee
U.S.A.

From :-
Kurukh Vikash Parishad
Nuagaon,Kuarmunda & Bisra
Dist: Sundargarh (Odisha)
Regd. No.SGD/2058/162/97
Head Office: Kartik Oraon Field,Fuljhar

Sub: Supporting letter for "Kurukh Banna" script Proposal Reg.

Dear Sir / Madam,
     We on behalf of our organizationKurukh Vikash Parishda,Nuagaon,Kuarmunda,Bisra
Sundargarh, Odisha,ested on1997.Kurukh Vikash Parishad is socio cultural and educational
organization of oraon society. Our organization has been working to preserve the kurukh
 language and culture of the oraon community by imparting cuitural knowlege and training
in kurukh language and Kurukh Banna(Script) to our oraon people.

     We Would like to express our sincere appreciation to Linguist Biswajit Mandal for the
effort he put into encoding the Kurukh Banna Script in Unicode the dovelopment in this
regard is an essential step toword preservingthe cuturar heritage and language of the
oraon community enlight of this. We respectfully request the Unicode committee.

                    Thanking you,

                                                      Your's faithfully

Moram   ᱨᱤᱨᱨ ᱫᱞᱨᱞᱨ
    Secretary   Bkhalkho
KUDUKH VIKASH PARISHAD   President
  Nuagaon, At-Kartik Oraon   KUDUKH VIKASH PARISAD
Padia Fuljhar, P.O.-Khuntagaon   Nuagaon, At-Kartik Oraon Field
Via-Bisra, Dist. Sundargarh   P.O.-Khuntagaon, Via-Bisra

Letter of Support from Kurukh Bhasha Sahitya Vikash Parishad.

KURUKH BHASHA SAHITYA VIKASH PARISHAD, ODISHA

BALIJODI ORAON TOLI PARHA CAMPUS,SONA PARBAT,ROURKELA-16, DIST: SUNDARGARH ODISHA
Phone: 9938446269, 9668339974, 7978120028. Email: kbsvp12@gmail.com

Ref. No.KBP.03/23.

Date.29.04.23.

To,
Dr. Deborah Anderson
Unicode Tecnical Director
Unicode Technical Commitee,U.S.A.

From:
Sri Mangla Xalxo, Secretary
Kurukh Bhasha Sahitya Vikash Parishad
Balijodi,Oraon Toli Parha Manda,Rourkela-16,
Dist: Sundargarh, (Odisha) Pin-769016

Sub: Supporting letter for Kurukh Banna script proposal Reg.

Sir/Madam,
    We, on behalf of Kurukh Bhasha Sahitya Vikash Parishad is wings of the kurukh parha on organization Teachers,intellectual,and cultural workers of the oraon community, formed in 2012 at Rourkela, Odisha.the organization's primary objective is to preserve the Kurukh language,promote the Kurukh Banna (Script),and develop Kurukh literature.Since its formation,the organization has been continuously working towords achieving these goal.

    In 2012, Second edition the organization published 2nd book,Kurukh Banna Turna Bachna,Which is the primary book for learning Kurukh Banna Script. Thisbook has been published in about eight eddition to this,the organization has published the works of many Oraon community writers and also released a megazin named Kurukh chambi in 2018,written in the Kurukh Banna (script).The organization promotes kurukh literature bysetting up book stalls at verious cultural event, making the books available to kurukh speakers in Chattisgarh,Jharkhand,West Bengal,and Assam.
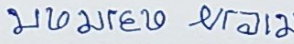
    The organization also organizes seminars, webinar, and discussions from time to time to raise awareness about the current challenges faced by the kurukh language and culture and to find solutions to those challenges. As the kurukh language is written in diffrent state e.g Devanagri,Roman,Odiya, Bengali (Script) thus it becomes difficult to pronounce it correctiy, also such presence poses a challenge to achieving consistency in the literature of the language.
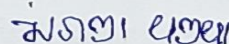
    Therefore, the organization is traying to preserve the Kurukh language through the Kurukh Banna (Script) and promote uniformity in linguistic conservation and development in the community.

    The organization is very delighted to know about the ongoing ef forts of liguist Biswajit Mandal on unicode encoding for "Kurukh Banna Script". UNESCO has inciuded the kurukh language in the list of endangered languages,and the language and culture are struggling for their existence.Therefore, oue organization on behalf of kurukh speaking people urges to unicode commitee to encode Kurukh Banna (Script) in unicode.This will help Kurukh language to get benefit of technological advancement and sustain its existence to future generation.

Thankyou.

Yours faithfully.

(MANMOHAN ORAM)
President
Kurukh Bhasa Sahitya
Vikash Parishad, Odisha

(MANGLA XALXO)
Genl. Secretary
Kurukh Bhasa Sahitya
Vikash Parishad, Odisha

Letter of Support from All India Kurukh Parha Yubak Sangh.

ÈLIRI BIƆƆ JIFI ÒJIAIV KIEEI VIHEƆIV ÈIEEI
ALL INDIA KURUKH PARHA YUBAK SANGH
Jonkh-Erpa Ara Pello-Erpa
(An Ancient, Traditional, Educational, Institution of Adivasi Kurukh Parha Youths.)
Head Office: Addi-Dharam Parha Manda, Youth Centre, Deogaon, Jalda-'A' Block, Rourkela- 43, Dist: Sundargarh, Odisha, India.
Mobile: 8763903014, 9348332091, 7008559265, 7653885722, 8102423220, 9937458781. E-mail ID: aikpys@gmail.com

Ref. No.: 008/ AIKPYS/ 2023   Dated: 01/ 05/ 2023

To,
The Dr. Deborah Anderson,
Unicode Technical Director,
Unicode Technical Comittee, USA.

From,
Mr. Ramchandra Xalxo, President,
ALL INDIA KURUKH PARHA YUBAK SANGH- (Jonkh-Erpa Ara Pello-Erpa)
An Ancient, Traditional, Educational, Institution Of Adivasi Kurukh Parha Youths.
Head Office: Addi-Dharam Parha Manda, Youth Centre, Deogaon, Jalda-'A' Block, Rourkela- 43, Dist: Sundargarh, Odisha, India.

Sub: **Supporting Letter for Encoding KURUKH BANNA Script Proposal Regarding.**

Honorable Sir/Madam,
    With reference to the subject cited above, we the Kurukh Youths of India seeking to encode Kurukh-Banna Script to enhance its writing & reading skills in the Technical World. We would like to draw your kind attention to the following few lines for your kind consideration.

1. AIKPYS- (Jonkh-Erpa Ara Pello-Erpa) is an Ancient, Traditional, Educational, Institution of Tribal Kurukh Parha Youths. The organization stands for the purely educational purpose to make kurukh youths aware towards their real Education-System, Socio-Cultural life and all that related with our life style. The organization organizes many Career-Guidance training programs & motivational programs on Kurukh-Language & Culture since last 2004 year. Also we are demanding constitutional rights of Kurukh-Language & Culture and its script KURUKH BANNA.

2. Kurukh is an ancient language belong to Dravidian family spoken by an Oraon Tribe (Kurukh or an Oraon Tribe has been identified under Article- 342 of Indian Constitution) of India and abroad. But it is going to meet it's own death by some reasons. In the current scenario it needs preservation & protection from the elements that caused death of Kurukh Language. More than 19 Million Kurukh (Oraon) People exist in Indian territory. Mr. Basudeoram Khalkho has created KURUKH BANNA Script is easy to write & read. Also it is acceptable by tha ORAON (KURUKH) community throughout the nation and abroad as per its scientific design.

3. We are glad to inform you that, Mr. Bishwajit Mandal, a dedicated activist on Kurukh language & script. We are very much elevated with knowing his effort & hard working for encoding KURUKH-BANNA Script in the UNICODE. We expect that, his effort may bring significant result to preserve Kurukh Language & It's Cultural Heritage at global level. Therefore, we specially request to UNICODE Committee to Encode KURUKH-BANNA Script as soon as possible.

Thanking you,   Your's trustworthy

BIƆIVƎI BIƆƆ   *JIVÒGƎ VƆVI*
Mr. BURUNGA BARLA   **Mr. RAMCHANDRA XALXO**
Chief Genl. Secretary   **President**
AIKPYS, Jalda-'A' Block,   AIKPYS, Jalda-'A' Block.
RKL-43. Dist.: SNG, Odisha   RKL-43, Dist.: SNG, Odisha

Letter of Support from Aadiwasi Mahasabha.

आदिवासी महासभा

प्रधान कार्यालय :– टेण्डर, रातु, रांची–835222
देवुकुमार धान (संयोजक) मो0 – 7761844150, 8235931389

पत्रांक 19/2023   दिनांक 03/05/202

To,

Dr. Deborah Anderson Unicode Technical Director,
Unicode Technical committee U.S.A.
From – Aadiwasi Mahasabha Ranchi Jharkhand Narayan Oraon, Charc
Oraon, Budhwa Oraon, Pawan Oraon, Mahadeo Oraon

Sub -   Supporting letter for Kurukh Banna Proposal Reg.

Dear Sir/Madam,

        We om behalf of our organization Aadiwasi Mahasabha Ranchi
Jharkhand easted on JUNE 40th Aadiwasi Mahasabha Ranchi Jharkhand is socio
Cultural and educational organization of Oraon Society. Our organization has
been working to preserve the language and culture of the oraon community
by imparting cultural knowledge and Training in Kurukh language and
Kurukh Banna Script to our Oraon people.

        We would like to express our sincere appreciation to Linguist
Biswajit Mandal for the effort he put into encoding the Kurukh Banna Script
in Unicode. The development in the regard is an essential step towards
preserving the cultural heritage and language of the Oraon Community in
light of this. We respectfully request the Unicode committee to prioritize the
encoding of the Kurukh Banna script in Unicode.

        Thanking you

                                                    Your Faithfully

DURGAPUR KURUKH PARHA
&
ORAON CULTURAL TRUST

Durgapur Orampara, Uditnagar, Rourkela – 769012
Distt. – Sundargarh, Odisha

Regd. no. 1711502054   Contact no. 9668339974 (M)   E-mail: oraonculturaltrust@gmail.com

Ref. No.: DKPOCT/02/23   Date: 03/05/2023

To,

    Dr. Deborah Anderson Unicode Technical Director,

    Unicode Technical Committee, U.S.A

From,

    Manmohan Oram

    Durgapur, Orampara,

    Rourkela-12, Sundargarh

Subject: Supporting letter for Kurukh Banna Proposal Reg.

Dear Sir/ Madam,

    With reference to the above subject, We on behalf of our institution wants to inform you that Durgapur Kurukh Parha & Oraon Cultural Trust traditional, socio-cultural and educational institution of the Oraon community located in Udit Nagar, Rourkela. As we know, UNESCO lists Kurukh language as an endangered language and our language and culture are struggling to survive. Many young people are moving away from their language and culture.

    In such situation, as a custodian of community, organization working to preserve the language and culture of the Oraon Community by imparting cultural knowledge and training in Kurukh Banna script to the youth member of Oraon Community.

    We are very delighted to teach that, linguist Biswajit Mandal is working towards Unicode Encoding for Kurukh Banna Script. We humbly request the Unicode Committee to encode the "Kurukh Banna Script" in Unicode. It will revive and promote our cultural heritage and ensure the survival of the Kurukh language for future generations. With access to online resources and digital content creation in our own Kurukh Banna Script, Kurukh speakers will be encouraged to use and promote the language, contributing to its preservation and revitalization.

With thanks and regards.

DURGAPUR KURUKH PARHA   Yours faithfully,
ORAON CULTURAL TRUST

Manmohan Oram
PRESIDENT

DURGAPUR KURUKH PARHA &
ORAON CULTURAL TRUST

SECRETARY
LUNDEI ORAM

DURGAPUR KURUKH PARHA &
ORAON CULTURAL TRUST
Regd No.- 1711502054
Durgapur, Orampara, Rourkela
Dist. Sundargarh, Odisha, Pin- 69012

Letter of Support from Udaan Sarna Samiti.

Ref.No.USS 09/23......

Date.01/05/2023

To,
Dr. Deborah Anderson
Unicode Technical Director
Unicode Technical Committee USA

Sub: Supporting letter for Kuruk Banna proposal reg.

Dear Sir,

We, on behalf of our organization, Udaan Sarna Samiti, Chakradharpur, Jharkhand would like to express our sincere appreciation to linguistic Biswajit Mandal for the effort he put into encoding the Kuruk Banna script in Unicode. The development in this regard is an essential step towards preserving the cultural heritage and language of the oraon community.

Udaan Sarna Samiti is a socio-cultural platform of our oraon society. Our organization has been working to preserve the language and culture of the oraon society by imparting knowledge and training in Kuruk language and Kuruk Banna script to our oraon community.

Inlight of the above, we respectfully request the Unicode committee to prioritize the encoding of the Kuruk Banna script in Unicode.

Thanking you

Yours faithfully

Secretary
Udaan Sarna Samiti
CKP, Jharkhand

(Udaan Sarna Samiti)

President
Udaan Sarna Samiti
CKP, Jharkhand

Letter of Support from Rajee Parha.

राजी पड़हा

उरांव आदिवासियों का पारम्परिक सामाजिक, सांस्कृतिक, धार्मिक एवं न्यायिक संगठन
(रूढ़ि प्रथा स्वशासन व्यवस्था)

मुख्यालय : नई रोहतासगढ़, सरना शक्ति पाठ, परसापानी, पो. आ. सेवारी, तहसील - राजपुर, जिला - बलरामपुर, छत्तीसगढ़ (भारत), पिन 497118

क्रमांक ..13.. /रा.प.भा./2023

दिनांक 28/4/23

To
Dr. Deborah Anderson Unicode Technical Director,
Unicode Technical Committee U.S.A.

From,
Jugeswar Urang
At/PO- Banipur
Dist- Debrugarh, Assam
Pin- 786003

Sub: Supporting letter for Kuruk Banna Proposal Reg.

Dear Sir/ Madam,

In reference to the above subject we on behalf of our organisation wants to inform you that Kurukh RageePadha Bharat is an ancient traditional, socio-cultural, and educational institution of the Oraon community located in at Pharsapani, PO- Sabari, Dist-Balrampur, Chhatisgarh. It is National level organization the Oraon People. As we know Kurukh language is listed as an Endangered language by UNESCO and our language and culture are struggling to survive.

In such situation, as a custodian of community, Kurukh Rajee Padha Bharat has been working to preserve the language and culture of the Oraon Community by imparting cultural knowledge and training in Kurukh language and Kurukh Banna script to the youth member of Oraon community.
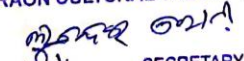
It brings us great joy to learn to linguist Biswajit Mandal's efforts to encode the Kurukh Banna script in Unicode this achievement is sure to have a positive impact on the Oraon Community by allowing them to safeguard their cultural heritage and language. We humbly urge the Unicode committee to take swift action to encode the Kurukh Banna script in Unicode.

Thanking you,

Yours faithfully,

Dhiraj Bhagat
DEWAN
KURUX RAJEE PARHA
BHARAT

Dhiraj Bhagat
Nagra Kata
PO- New Mal Bazar
Dist- Siliguri, W.B.

KAHTO
KURUX RAJEE PARHA
BHARAT

Edwad Tirkey
At- Patelpara
Ambicapur, C.G.

BEL
KURUKH PADA PARHA
CHHATISHGARH

Jugeswar Urang.
BEL
KURUX RAJEE PARHA
BHARAT

Jugeswar Urang
Banipur, Dist- Debrugarh
Assam

BEL
KURUKH PADA PARHA
JHARKHAND

Mob. : 9938446269, 9437767168

ଗଣେବ ଯାଦ ଶାଇଇ ଗୀଆଜଗ

KURUKH DARA PARHA BALIJODI

(Oram Paramparik Gram Sabha)

ROURKELA - 769016, DIST. SUNDARGARH, ODISHA

Ref No.KDPB.05/23....   Date.01/05/2023........

To
Dr. Deborah Anderson Unicode Technical Director,
Unicode Technical Committee U.S.A.

Sub: Supporting letter for Kuruk Banna Proposal Reg.

Dear Sir/ Madam,
        In reference to the above subject we on behalf of our institution wants to inform you that Kurukh Dara Parha is an ancient traditional, socio-cultural, and educational institution of the Oraon community located in Balijudi, Rourkela, Odisha. As we know, Kurukh language is listed as an endangered language by UNESCO, and our language and culture are struggling to survive. Many young people are moving away from their language and culture.
        In such situation, as a custodian of community, Kurukh Dada Parha has been working to preserve the language and culture of the Oraon Community by imparting cultural knowledge and training in Kurukh language and Kurukh Banna script to the youth member of Oraon community.
        To further these efforts, we received a grant from the Government of Odisha in 1995. As a result, Kurukh Dada Parha now organize residential training camps on a large scale, making many young people aware of Kurukh language and Kurukh Banna script.
        In 2018, Kurukh Dada Parha, in association with E-Disom Technology, launched the 'Kurukh Keyboard' Android App to learn and type in Kurukh Banna script on mobile devices. This initiative grabbed the attention of young member of community towards language and its script, also it inspired other traditional and customary Parha institutions in states like Chhattisgarh, Jharkhand, Bengal and Assam to make the Oraon community members revive their language, culture and script.
        We are very delighted to learn that linguist Biswajit Mandal is working towards Unicode encoding for Kurukh Banna script. We humbly request the Unicode Committee to encode the 'Kurukh Banna Script' in Unicode. It will revive and promote our cultural heritage and ensure the survival of the Kurukh language for future generations. With access to online resources and digital content creation in our own Kurukh banna script, Kurukh speakers will be encouraged to use and promote the language, contributing to its preservation and revitalization.

Thanking you,   Yours faithfully,

Mongala Xalxo
BEL
KURUKH DADA PARHA
Balijodi, Rourkela-16

Chandrakant Oram
Bel
Kurukh Muli Padha,
Sambalpur

Padma Bhagt

Letter of Support from Kukuda Kurukh Parha.
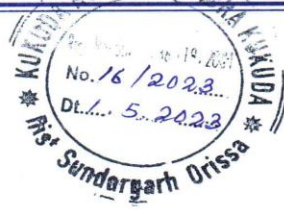
କାୟେ ଧାର୍ମେ !   କାୟେ ଚାଅଲ !!   କାୟେ ପାଢ଼ା !!!

KUKUDA KUDUKH PADHA
KUKUDA, BISRA BLOCK, DIST.-SUNDARGARH (ODISHA)
Regd. No. /S.G.D.-4236-119/2001

Ref. No.16/2023......

No. 16/2023
Dt. 1. 5. 2023

Date. 1. 5. 2023.

To

Sr. Deborah Andersonn Unicode Technical Director
Unicode Technical Committee USA

From:

Duda Tirkey Bel
Kukuda Kuudukh Padha
Vill. Kukuda, Po. Bisra Berkera
Dist: Sundargarh Odisha

       SUB:- Supporting letter for Kurukh Banna proposal Reg.

Dear Sir/Madam,

On behalf of our organization Kurukh Dada Parha in reference to the above subject once to inform you that Kurukh Dara Parha Kukuda is an ancient traditional, social cultural and educational institute of the our locality, which is at Kukuda Po. Bisra, Birkera, Dist. Sundargarh, Odisha. As we know Kurukh language is listed as an endangered language by UNESCO our language and culture are strutlling to survive. Many young people are moving away from their language and cultural.

In such situation as constudian of community Kurukh Dara Parh Kukuda has been working to preserve the language and culture of the Oraon community by imparting cultural knowledge and training in Kurukh language Kurukh Banna script to the youth member of Oraon community.

We are grateful for the hard and dedication shown by linguist Biswajit Mandal to encode the Kurukh Banna script in Unicode. This achievement will be significant milestone in the preservation of Oraon community's cultural heritage and language. As such as we humbly request the Unicode committee to encode the Kuruk Banna script in Unicode as soon as possible.

Thanking you,

Yours faithfully,

DUDA TIRKEY
Padha Raja Bel,
Kukuda Kundukh Padha
Kukud

<table>
<tr><td colspan="2">ISO/IEC JTC 1/SC 2/WG 2
PROPOSAL SUMMARY FORM TO ACCOMPANY SUBMISSIONS
FOR ADDITIONS TO THE REPERTOIRE OF ISO/IEC 10646TP ¹ PT
Please fill all the sections A, B and C below.
Please read Principles and Procedures Document (P & P) from HTUhttp://std.dkuug.dk/JTC1/SC2/WG2/docs/principles.html UTH for guidelines and details before filling this form.
Please ensure you are using the latest Form from HTUhttp://std.dkuug.dk/JTC1/SC2/WG2/docs/summaryform.htmlUTH.
See also HTUhttp://std.dkuug.dk/JTC1/SC2/WG2/docs/roadmaps.html UTH for latest <i>Roadmaps</i>.</td></tr>
</table>

A. Administrative

1. **Title:**	*Preliminary Proposal to Encode the Kurux Banna in UCS*
2. Requester's name:	*Biswajit Mandal (biswajitmandal.bm90@gmail.com)*
3. Requester type (Member body/Liaison/Individual contribution):	*Individual Contribution*
4. Submission date:	*05/05/2023*
5. Requester's reference (if applicable):	
6. Choose one of the following:	
This is a complete proposal:	*Yes*
(or) More information will be provided later:	*No*

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:	*Kurux Banna*
b. The proposal is for addition of character(s) to an existing block:	
Name of the existing block:	
2. Number of characters in proposal:	*68*

3. Proposed category (select one from below - see section 2.2 of P&P document):

A-Contemporary	X	B.1-Specialized (small collection)	
C-Major extinct		D-Attested extinct	E-Minor extinct
F-Archaic Hieroglyphic or Ideographic		G-Obscure or questionable usage symbols	

(B.2-Specialized (large collection))

4. Is a repertoire including character names provided?	*Yes*
a. If YES, are the names in accordance with the "character naming guidelines" in Annex L of P&P document?	*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 the standard?	
Biswajit Mandal (biswajitmandal.bm90@gmail.com)	
b. Identify the party granting a license for use of the font by the editors (include address, e-mail, ftp-site, etc.):	
Basudeo Ram Khalkho (basudeokhalkho1996@gmail.com)	
6. References:	
a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided?	*Yes*
b. Are published examples of use (such as samples from newspapers, magazines, or other sources) of proposed characters attached?	*Yes*
7. Special encoding issues:	
Does the proposal address other aspects of character data processing (if applicable) such as input, presentation, sorting, searching, indexing, transliteration etc. (if yes please enclose information)?	*Yes*
See proposal for additional details	

8. Additional Information:

Submitters are invited to provide any additional information about Properties of the proposed Character(s) or Script that will assist in correct understanding of and correct linguistic processing of the proposed character(s) or script. Examples of such properties are: Casing information, Numeric information, Currency information, Display behaviour information such as line breaks, widths etc., Combining behaviour, Spacing behaviour, Directional behaviour, Default Collation behaviour, relevance in Mark Up contexts, Compatibility equivalence and other Unicode normalization related information. See the Unicode standard at HTUhttp://www.unicode.orgUTH for such information on other scripts. Also see Unicode Character Database (uHhttp://www.unicode.org/reports/tr44/) and associated Unicode Technical Reports for information needed for consideration by the Unicode Technical Committee for inclusion in the Unicode Standard.

C. Technical - Justification

1. Has this proposal for addition of character(s) been submitted before? — *No*

    If YES explain

2. Has contact been made to members of the user community (for example: National Body,

    user groups of the script or characters, other experts, etc.)? — *Yes*

    If YES, with whom? — *Basudeo Ram Khalkho, Mangla Xalxo, Manmohan Oram, Ramchandra Xalxo, Burunda Barla, Lundei Oram, etc*

    If YES, available relevant documents: — *See citations in text proposal*

3. Information on the user community for the proposed characters (for example:

    size, demographics, information technology use, or publishing use) is included? — *Yes*

    Reference: — *See text of proposal*

4. The context of use for the proposed characters (type of use; common or rare) — *Common*

    Reference: — *See text of proposal*

5. Are the proposed characters in current use by the user community? — *Yes*

    If YES, where? Reference: — *See text of proposal*

6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely

    in the BMP? — *No*

    If YES, is a rationale provided?

    If YES, reference:

7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)? — *Yes*

8. Can any of the proposed characters be considered a presentation form of an existing

    character or character sequence? — *No*

    If YES, is a rationale for its inclusion provided?

    If YES, reference:

9. Can any of the proposed characters be encoded using a composed character sequence of either

    existing characters or other proposed characters? — *No*

    If YES, is a rationale for its inclusion provided?

    If YES, reference:

10. Can any of the proposed character(s) be considered to be similar (in appearance or function)

    to, or could be confused with, an existing character? — *No*

    If YES, is a rationale for its inclusion provided?

    If YES, reference:

11. Does the proposal include use of combining characters and/or use of composite sequences? — *No*

    If YES, is a rationale for such use provided?

    If YES, reference:

    Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?

    If YES, reference:

12. Does the proposal contain characters with any special properties such as

    control function or similar semantics? — *No*

    If YES, describe in detail (include attachment if necessary)

13. Does the proposal contain any Ideographic compatibility characters? — *No*

    If YES, are the equivalent corresponding unified ideographic characters identified?

    If YES, reference: