# Proposal to encode the Minim Dag Noore script in the UCS Oreen Yousuf

To: Script Encoding Working Group (SEWG) / Unicode Technical Committee (UTC)

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Subject: Minim Dag Noore Script

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We propose the addition of the Minim Dag Noore script into the Unicode Standard. Since its invention in 2006, the script has been used to write the Mooré language (also known as "Mossi") of Burkina Faso and neighboring countries.

#### Considerations for encoding the script

**Encoding 1**) The Minim Dag Noore script is a bidirectional script (i.e., it can be written *either* right-to-left (RTL) or left-to-right (LTR), however it is not at all a boustrophedon script. There are separate glyphs for each writing direction, and one cannot mix directions when writing. We propose to only encode the RTL letters of the script and have the LTR letters be properly handled by fonts. RTL is the most used direction of writing in the user community. 2) The script's mathematical numbers are explained in full on pages 19-20. A question for the SEWG is if it's preferable to only encode the "base" mathematical numbers, or to additionally, separately encode several additions of the script's mathematical numbers (i.e., 6,7,8,9,60,70,80,90,200,300).

**Sources** At the end of the document we have provided ample evidence of use by multiple authors in the community that are not the script creator nor related to the script creator. We include excerpts from 15 typed books, handwritten works, educational materials/primers, digital media, images of in-person and virtual classes of people learning the script, and an interview with a Burkinabe scholar who also wrote a letter of attestation of the script's suitability for Mooré.

#### I Background

The Mooré language (ISO 639-3: *mos*) is a Gur language spoken by about 12 million people. It is the native language of the Mossi people who primarily live in Burkina Faso, but also neighboring countries like Benin, Ivory Coast, Ghana, Mali, Togo, Niger, and Senegal. Along with being one of the four official languages of Burkina Faso, it also acts as a lingua franca of the country and a Latin orthography is employed by the government when written.

On November 23, 2006, the Minim Dag Noore script (اسماليمس المحتوية) was created by Mahamadi Ouédraogo, a Burkinabe man born in 1982 in the village of Lamba, in the Békuy commune, Tuy Province, Hauts-Bassins Region, Burkina Faso. The script came to Ouédraogo as a revelation in 2006 after extensive scholarly and spiritual travel of West and North Africa.

The script has appeared on a Burkinabe National Television (RTB) news report, and discussed at the Department of Linguistics and National Languages at *Institut des Sciences des Sociétés* (INSS) (Institute of Social Sciences), an institution within the framework of the National Centre for Scientific and Technical Research (CNRST). While there is no government support of the script, in 2016 Ouédraogo met and interviewed with Bétéo D. Nébié and Inoussa Guiré, the former and current (as of August-September 2022) director, respectively, of the Department of Linguistics and National Languages at INSS. Nébié and Guiré "let [Ouédraogo] undergo some tests and [...] found that his alphabet was coherent." An official letter certifying this is attached after the Acknowledgments section of this proposal. Additionally, to the proposal author's knowledge, the first non-Burkinabe academic to document the use and structure of the script was paleographer Jannis Kostelnik after conducting fieldwork in the area of use.

There are 1,000+ people that have learned and used the Minim Dag Noore script and the script has grown far beyond the inventor's social circle. Most users of the script live in various areas of Burkina

Faso, Ivory Coast, Mali, Senegal, and in certain European countries. The script is taught in-person in group settings, and online (e.g., WhatsApp, Facebook). There are 2 very large and active WhatsApp group-chats devoted to teaching/learning the script with a few hundred script users/learners in them. People actively partake in exercises in the WhatsApp groups. While most learners in the WhatsApp groups are from the previously mentioned countries, there are notably many people joining from Arab countries. March 2024 saw an influx of a few hundred new students into the WhatsApp group chats perhaps due to a new TV/radio report on Ouédraogo. The WhatsApp groups have also attracted some political attention as one of the new members is former presidential candidate Yeli Monique Kam.

The user community has developed 3 fonts for the script that have been used to write several books on various topics (e.g., poetry, proverbs, etc.), primers, documents, pamphlets, and create digital content in online videos. The script is included in materials written by individuals **other** than the script creator.

A layout of how the community types in the Minim Dag Noore script can be seen from a keyboard layout, and a subsequent linguistic analysis of said layout, in Figures 29-31 in Section IX, which will be helpful for keyboard designers. The community essentially uses the Arabic and English keyboards/codepoints with their fonts to type their script.

A very important aspect of the Minim Dag Noore script is that it can be, and is, used to write the Arabic language (ISO 639-3: *ara*) in addition to Mooré. The phonetic values of a subset of the letters change when the writer uses the script to write the Arabic language instead of Mooré.

### **II Script Name**

The proposed Unicode name for the script is "MINIM DAG NOORE", which means "the doors of knowledge/science" in the Mooré language. The canonical name of the script is المعالامين أحمد الجبني .

#### III Structure

The Minim Dag Noore script is an alphabet at its core, but has heavy elements of an abjad. Minim Dag Noore is both a sinistrograde (right-to-left) script and a dextrograde script (left-to-right). This means the script is written either from right-to-left (RTL) or left-to-right (LTR) in a remarkably unique case of bidirectional text among the world's writing systems. Minim Dag Noore is <u>not</u> a boustrophedon script, wherein the first line of text is written in one direction and the subsequent line is written in the opposite direction. Depending on how a person learns the script, they will write either RTL or LTR. People can easily read both RTL and LTR and there is no confusion in reading direction in a group of people that has both RTL and LTR writers. While the majority of people write RTL, there is a non-insignificant number of LTR users. People do not mix directions when writing.

There are lowercase and uppercase letters for each direction of writing. Lowercase letters are joined at the bottom similar to the Arabic, NKo, and Adlam scripts. There are positional forms for the lowercase letters (as seen in Table 23), though they are not as drastic as positional forms in the Arabic script.

| Nama | IDA   |              | etters               |            | etters               |
|------|---|--------------|----------------------|------------|----------------------|
| Name | IPA   | Lowercase    | ograde)<br>Uppercase | Lowercase  | ograde)<br>Uppercase |
| А    | /a/   | ∠\           | Л                    | Lowercase  | ر مولوداده           |
| ВА   | /b/   | مہ           | ۵                    | مم         | α                    |
| DJA  | /g <sup>i</sup> /   | त्र          | <b>9</b>             | عد         | 9                    |
| DA   | /d/   | لم           | <u></u>              | مہ         | 7                    |
| НА   | /h/   | <u>&amp;</u> | X                    | &.         | X                    |
| wou  | /w/   | ~4           | Ω                    | 8          | 오                    |
| ZA   | /z/   | স            | Ю                    | <b>X</b>   | 머                    |
| PAHE | /p/   | -&           | ×                    | &          | Z                    |
| VATE | /v/   | <b>£</b>     | Z                    | <b>S.</b>  | Z                    |
| YI   | /j/   | <i>ح</i> م   | Ω                    | 2          | Ω                    |
| KA   | /k/   | ক্           | £                    | 2.         | £                    |
| LA   | /\/   | عد           | Ю                    | بد         | Ю                    |
| MA   | /m/   | سے           | m                    | <b>兀</b> 、 | Ш                    |
| NA   | /n/   | IL.          | 91                   | ىللا       | 94                   |
| SA   | /s/   | ٤            | E                    | ٤          | Σ                    |
| FA   | /f/   | للہ          | U                    | l.         | U                    |
| NGAS | /g/, if occurring after<br>/ŋ/  | 2            | ອ                    | 2.         | פ                    |
| QAX  | [k], [y] and possibly [g <sup>i</sup> ] as allophones of /g/. /k <sup>i</sup> / as allophone of /k/ | ی            | G                    | £          | G                    |
| RA   | /r/   | *            | Z                    | か          | Z                    |
| TA   | /t/   | *            | Ψ                    | 上          | I                    |
| SANG | /ŋ/   | Ж            | Ю                    | PL.        | Ю                    |
| GA   | /g/   | 2            | C                    | ۷          | C                    |

Table 1. Basic character inventory of the Minim Dag Noore script when writing Mooré.

The letters A, WOU, and YI, are considered the 3 "base vowel-letters" and are used with diacritics to create several different vowels (shown in the 'Diacritics' subsection below).

#### Other letters

Writing WOU or YI with a diacritic word-initially always represents a vowel with semi-vocalic onset, e.g. [wo] or [yi], comparable to Arabic Wāw و with a following short vowel, i.e., ؤ or ي. However, there are two additional letters similar to WOU and YI that are used for word-initial vowels without a preceding semi-vowel, which is unusual in Mooré and mostly occurs in

loanwords (e.g., Espã<sup>n</sup>i ("Spain", from French Espagne)).

|     | Word-initial lowercase vowel WOU | Example          | Word-initial lowercase vowel YI | Example |
|-----|----------------------------------|------------------|---------------------------------|---------|
| RTL | ~ <del>2</del>                   | <del>و</del> لسِ | √d vowel 11                     | نیکمیر  |
| LTR | 2                                | ي.               | <i>1</i> 24                     | بهرست   |

Table 2.1. Lowercase word-initial vowel letters.

 $\mathbf{A}$  + respective vowel diacritic\* corresponds to an initial  $/\mathbf{I}/$ ,  $/\mathbf{e}/$ ,  $/\mathbf{\tilde{e}}/$ ,  $/\mathbf{\tilde{i}}/$ ,  $/\mathbf{i}/$ ,  $/\mathbf{e}/$ .

 $\varphi$  + respective vowel diacritic\* corresponds to an initial  $\langle v \rangle$ ,  $\langle o \rangle$ ,  $\langle \tilde{o} \rangle$ ,  $\langle \tilde{u} \rangle$ ,  $\langle u \rangle$ , [oa].

This word-initial vowel YI letter can also be used when writing the Arabic language and represents | (IPA: /ʔi/).

There are also uppercase word-initial vowel letters:

| - 4 |           |              |                     |            |             |  |  |  |
|-----|-----------|--------------|---------------------|------------|-------------|--|--|--|
|     | Direction | Word-initial | vowel WOU           | Word-initi | al vowel YI |  |  |  |
|     | Direction | Uppercase    | Uppercase Lowercase |            | Lowercase   |  |  |  |
|     | RTL       | A            | ą                   | Λ          | <b>~</b> 1  |  |  |  |
|     | LTR       | ß            | 2                   | ^          | 12          |  |  |  |

Table 2.2 Uppercase and lowercase word-initial vowel WOU and YI.

<sup>\*</sup> See Diacritics table (Table 4) below to see vowel diacritics for Mooré.

Both the sinistrograde (RTL) script and the dextrograde (LTR) script have distinct letters for

representing word-final lowercase vowels:

|     | Abasga<br>(Word-final<br>lowercase<br>vowel A) | Examples        | Yıbasga<br>(Word-final<br>lowercase<br>vowel YI) | Examples             | Wubasga<br>(Word-final<br>lowercase<br>vowel<br>WOU) | Examples      |
|-----|--|-----------------|--|----------------------|--|---------------|
| RTL | •  | - <del>\$</del> | ٤  | ممالكم               | L  | <b>火</b><br>→ |
| LTR | •  | & <u>_</u>      | 3  | <u>ئ</u> مالۇم<br>—— | _  | <b>Æ</b> .→   |

Table 3. Word-final vowel graphemes. Note: any empty spaces between the letters in the examples above is due to an imperfect font; all text is, and should be, connected in the examples above.

These should be encoded as they are considered separate letters and are collated differently than the "normal" A, WOU, and YI letters in Table 1 (see Figure 48 in Section IX).

#### **Diacritics**

There are many (non-spacing) diacritics in the Minim Dag Noore script. To write the Mooré language, the following diacritics are used.

| Name    | Diacritic | RTL  |                        |          | LTR              | Mooré<br>Latin | IPA   |
|---------|-----------|------|------------------------|----------|------------------|----------------|-------|
|         |           | Base | Base + Diacritic       | Base     | Base + Diacritic | Orthography    |       |
|         | له ا      | ~    | a 🝾                    | <u>م</u> | <u>~</u>         | a              | /a/   |
| Abila   | ै         | ھ    | a <b>4</b>             | 9        | ğ                | υ              | /ʊ/   |
|         |           | ٩    | a <b>Ç</b>             | ર્વ      | 2                | ι              | /1/   |
|         |           | ~    | ٠.                     | s.       | j.               |                | /ə/   |
| Sobila  | ்         | 4    | ৽প্                    | ф        | ġ                | o              | /o/   |
|         |           | વ    | • 6                    | ર્વ      | ·<br>م           | е              | /e/   |
|         |           | ~    | \$∘                    | ø.       | Å.               | ã              | /ã/   |
| Hõbila  | ំ         | ~    | °व्                    | 9        | ŷ                | õ              | /õ/   |
|         |           | ۶    | <b>.</b>               | ط        | å.               | ẽ              | /ẽ/   |
|         | _         | ~    | ار ال                  | s.       | ؞                |                | /७/   |
| Zĩbila  | ំ         | 4    | n <b>4</b> 7           | 9        | ð                | ũ              | /ũ/   |
|         |           | વ    | ે <b>લ</b>             | ર્વ      | مُ               | ĩ              | /ĩ/   |
|         | _         | ~    | ر.<br>م                | <u>~</u> | <u>چ</u>         |                | /æ/   |
| Dibila  | ័         | 4    | u <b>4</b> 7           | ф        | ģ                | u              | /u/   |
|         |           | વ    | u <b>ન્</b>            | ર્વ      | مّ               | i              | /i/   |
|         | 10        | ~    | <b>≯</b> 6             | /s       | <u>~</u>         |                | /a~p/ |
| Zoabila | ឺ         | م    | 9 <b>4</b> 7           | ð        | \$               | oa             | [oa]  |
|         |           | વ    | <sup>9</sup> <b>લ્</b> | ર્વ      | 2                | 3              | /٤/   |

Table 4. The 6 vowel diacritics used on top of the 3 base vowel-letters to write the Mooré language. When a vowel-letter does not have a vowel-diacritic on top of it, it is generally assumed the vocalic realization comes from Abila

Notice from Table 4 that diacritics' shapes are fixed and do not change orientation when used on either the RTL or LTR versions of the script.

 $<sup>^{\</sup>circ}$ . Writing vowels with uppercase letters will be discussed later. While /9/, /8/, /2/, and /2/2 do not natively occur in Mooré (hence the empty cells in the Latin orthography column), verified by a consulted scholar familiar with Mooré phonology, the letter+diacritic combinations are used in the script, most likely for emphasis or volume.

"Zaouga" is used when displaying the 6 vowel diacritics in isolation (for pedagogical texts) and for using the script to write the Arabic language. We sometimes refer to Zaouga as "vowel diacritic holders" in the proposal. "Zoubedre" is used for vocalization in uppercase text in addition to the same pedagogical purposes as Zaouga.

| Case               | Direction<br>of<br>Writing | Default  | a ·        | •        | ৽      | ា      | េ              | 9             |
|--------------------|----------------------------|----------|------------|----------|--------|--------|----------------|---------------|
| Zaouga<br>(for     | RTL                        | <b>ئ</b> | 2 <b>1</b> | نہ       | ئ<br>د | 7 n    | -<br><b>لہ</b> | 7             |
| lowercase)         | LTR                        | 4        | a <b>4</b> | <b>.</b> | °      | a 🔰    | <b>_</b>       | 9             |
| Zaoubedre          | RTL                        | I        | a<br>I     | i        | 0      | ے<br>ا | <b>I</b>       | ъ<br><b>Т</b> |
| (for<br>uppercase) | LTR                        |          | a <b>I</b> | i        | 0      | ۱ ا    | ر<br>ا         | <b>9</b>      |

Table 5. Zaouga and Zaoubedre.

There is an obsolete version of Zaouga that was used in the past and should be encoded to preserve older material. The largest use of the Old Zaouga is throughout a 305-page publication of an Arabic-language Qur'an written in the Minim Dag Noore script. Old Zaouga behaves the same as the modern version in Table 5. The change in appearance for the glyph(s) was very quick after the script's creation.

|                    | Direction<br>of<br>Writing | Default | a ः | •        | ৽          | ា        | ា   | ्र       |
|--------------------|----------------------------|---------|-----|----------|------------|----------|-----|----------|
| Old Zaouga         | RTL                        | -       | 2   | -        | <b>)</b> 0 | <u> </u> |     | <b>6</b> |
| (for<br>lowercase) | LTR                        | 4       | a   | <b>!</b> | <b>\</b> 0 | n        | u 📥 | 5        |

Table 6. Obsolete forms/graphemes of Zaouga.

When writing **Mooré** in <u>capital</u> letters (not in lowercase), in either direction, specific vowel marks are used in lieu of the 3 base vowel-letters (as seen in Tables 1 and 4). These vowel-marks are placed below a consonantal letter. In Mooré, following the consonant that these marks are placed below, a Zaoubedre with a vowel diacritic atop it is written to specify exactly which vowel is produced. So, in summary, one must use a below vowel-mark and the subsequent Zaoubedre's vowel diacritic value to produce a specific vowel. If a Zaoubedre and/or its vowel-diacritic is not written after the consonant, an inherent Abila diacritic and its vocalization can be assumed.

These diacritics can also be used on any letters (including the base vowel-letters) when writing Arabic.

There are two distinct marks that represent YI, called Masgodga. One is used for capital letters (i.e., when writing Mooré) and one used for lowercase letters (i.e., when writing Arabic). See Figures 41.1-41.3 in Section IX for examples of how to read/interpret vowels in uppercase text.

|                         |                       |          | Faviorlant Vavorl               | E:       | xamples of Use      |            |
|-------------------------|-----------------------|----------|---------------------------------|----------|---------------------|------------|
| Below '                 | Below Vowel-Mark      |          | Equivalent Vowel-<br>Letters    | Mod      | oré                 | Arabic*    |
|                         |                       |          | Letters                         | LTR      | RTL                 | Alabic     |
|                         |                       | ~ Λ      |                                 | ĎηιΞζιά  | IŽMiāZįŽ            | <i>w</i>   |
| Mastırga (ı             | •                     | <u> </u> | a b                             |          | - iacitalà          | الثقطية    |
|                         | ·                     |          | Mooré Lowercase<br>Equivalent → | مهُلمُم  | مگاتمما             |            |
| NA set ~ lune /         |                       |          | <b>4</b> 2                      | ĮŎŖţŦŢŎ  | I 立価! 並 <b>Z</b> !立 | E          |
| Mastẽkre (<br>vowel     |                       | ়        | g<br>S                          | -        | -3                  | العلايتمال |
|                         |                       |          | Mooré Lowercase<br>Equivalent → | لممعلهم  | لتمكيم              |            |
|                         | used for              | 0        | ΩΩ                              | lõmţārţά | IÖMJĀZĮÓ            |            |
| Masgõdga<br>(represents | Uppercase             | 1        | Mooré Lowercase<br>Equivalent → | لممملهم  | لتممًكيم            | _          |
| vowel YI)               | used for<br>Lowercase | ၬ        | લ                               | -        |                     | القيتيا    |

Table 7. Below vowel-marks. Red = specified diacritic in the word; Blue = specified vocalization. \*While Arabic can be written both RTL and LTR in Minim Dag Noore, it's mostly written RTL.

It is important to note that these below-vowel marks in Table 7 **cannot** be used together with the vowel-diacritics in Table 4.

Takre, <sup>5</sup>, is a diacritic used to mark long vowels. Takre can be used on two adjacent vowel-letters. It is visually stretched over the top of both vowel-letters. When this happens, Takre can be used in conjunction with vowel-diacritics.

| Takre (LONG                 |   |                         | Examples                |                              |  |
|-----------------------------|---|-------------------------|-------------------------|------------------------------|--|
| VOWEL                       | Lowe  | ercase                  | Uppercase               |                              |  |
| DIACRITIC)                  | RTL   | LTR                     | RTL                     | LTR                          |  |
| ি                           | متک   | عجم                     | vठង់ក៏ <u>v</u>         | <u>Ÿ</u> 而お5♥                |  |
| Across 2 base vowel-letters | \$\frac{1}{2} \frac{1}{2} \frac | 22 29<br>22 27<br>23 29 | ΩΛ ΩΛ<br>ΩΩ ΛΩ<br>ΩΩ ΛΩ | <u>አህ የሀ</u><br><u>የህ የሀ</u> |  |

Table 8. Minim Dag Noore script Takre (long vowel diacritic). See Figure 15 in Section IX to see Takre stretched over two vowel letters; see Figure 17 to see another diacritic above Takre stretched over two vowel letters; and see Figure 21 to see 2 diacritics above Takre stretched over two vowel letters.

If a vowel-diacritic has already been placed on a basic vowel-letter, a distinct long-vowel letter follows the respective base vowel-letter. When writing in lowercase (regardless of direction) this long-vowel letter is always connected to the preceding vowel, but separated from the following consonant. In that respect, as well as in shape, it exhibits parallels to an Arabic Alif representing a long vowel /a:/, <\>. The uppercase version of the script (also regardless of direction) has its own long-vowel letter — a long vertical bar/line, and is also, naturally, not connected to the following letter.

|           | Takzısgo (for             | lowercase) | Takbedre (for i | uppercase) |
|-----------|---------------------------|------------|-----------------|------------|
|           | RTL                       | LTR        | RTL             | LTR        |
| Lowercase | J                         | 7          | _               |            |
| Examples  | بر <mark>خا</mark> س<br>⊷ | Δ. Z.      | ľi∧U<br>◆       | المال      |

Table 9. Long-vowel letters.

There are other (non-spacing) diacritics used in the Minim Dag Noore script for various linguistic phenomena.

| linguistic phenom | iena.     |  |  |  |
|-------------------|-----------|--|--|--|
| Name              | Diacritic | Function   | Example  |  |
| Kengre            | 3         | * Reduplication/gemination   | حالاً<br>→   |  |
| Gõdga             | ँ         | * Consonantal ending of a lexeme. Used only when writing Arabic.   | مِعْسِ   |  |
|                   |           | * [Exceptionally] short vowels  * Placeholder diacritic for vowel phonemes absent from Mooré  * Free variation of /r/ ⇔ /d/ and /s/ ⇔ /h/  * Conversion of Mooré phonemes to Arabic phonemes   | <del>-</del> &   |  |
| Tırga             | Turga     | This diacritic can continuously stretch (without interruption) over two vowelletters, similar to Takre in Table 8. However, if 2 adjacent letters both use this diacritic, and they are not both vowels, the diacritic is disjointed | RTL LTR  Ag &   Ay &    Ay &   Ay &   Ay &   Ay &   Ay &   Ay &   Ay &   Ay &   Ay &   |  |
| Yıkre             | ্         | * Prenasalized consonants * Syllabic nasals of languages other than Mooré * Palatalization of /n/  | المناه ال |  |
| Киида             | ੋ         | * Distinction of words that are homophone or only tonally distinct   | <b>TIC</b> ZiI   |  |
| Gemgango          | č         | * Accommodation of<br>manners and places of<br>articulation absent from<br>Mooré (especially labial-<br>velars)  | ڹ <del>ڵ</del> ڿڮۜ   |  |
| Pirgu             | ៌         | * Abbreviated terms  * Marker of French loanwords  * Word-medial pronunciation of /w/ as a consonant   | للمطيث   |  |

| Zılımbila | ំ | * Accommodation of<br>manners and places of<br>articulation absent from<br>Mooré (especially implosives) | <u> عم</u> لام |
|-----------|---|--|----------------|
|           |   | ividuic (capecially illiplusives)  |                |

Table 10. Other diacritics used in the Minim Dag Noore script. \*There are many references, those listed in this table only represent some.

The table below shows how multiple diacritics can be used on a single letter. Only linguistically valid diacritic combinations are shown in the table below, but font designers should carefully study and deduce all potential diacritic combinations.

| shown ii | own in the table below, but font designers should carefully study and deduce all potential diacritic combinations. |   |   |   |   |    |   |            |          |            |              |    |             |                             |     |
|----------|--|---|---|---|---|----|---|------------|----------|------------|--------------|----|-------------|-----------------------------|-----|
|          | a  | ំ | ំ | ੌ | ិ | ្ន | ি | <b>3</b> ° | <b>ः</b> | _          | ം<br>്       | ੌ  | <b>&gt;</b> | î                           | ैं  |
| ಂ        | -  |   |   |   |   |    |   | िष्ट       | 37       | ाव         | <b>ब</b> व े | िव | >a -        | <a< td=""><td>ેદ∢</td></a<> | ેદ∢ |
| •        |  | - |   |   |   |    |   | 3•ે        | ુ• દ     | <u>.</u>   | *<br>•       | ·  | >•○         | ê                           | •   |
| ಂ        |  |   | - |   |   |    |   | 3०         | ಂ೯       | ိ          | ိ            | ်  | >0          | <b>^</b>                    | ំ   |
| ಂ        |  |   |   | - |   |    |   | ា៖         | 3n°      | -n         | <b>រ</b> ្   | ្រ | •៣೦         | (n)                         | ំ   |
| ា        |  |   |   |   | - |    |   | 3 ហ        | े । ६    | <u>ី</u>   | <b>a</b> U   | โข | >u°         | <b>^</b> u^                 | •u  |
| ु ।      |  |   |   |   |   | -  |   | 390        | ः        | ।७         | ខ្ទុ         | िऽ | >9          | <গ্                         | • ୬ |
| া        |  |   |   |   |   |    | - | ा६         | ाह       |            | ु            |    | ा<          | ्।                          |     |
| 3 .      |  |   |   |   |   |    |   | -          |          | <b>3</b> I | 3 a o        | 3ि | <b>3</b> >○ | <b>3</b> <̂                 | 3▶  |
| ः        |  |   |   |   |   |    |   |            | -        | ाः         | ្ន           | 3િ | ः           | <b>،</b> د                  | 3•  |
| ī        |  |   |   |   |   |    |   |            |          | -          | <b>22</b>    |    |             |                             |     |
| ្        |  |   |   |   |   |    |   |            |          |            | -            | ৃ  | <b>\$</b> > | <b>%</b> <                  | _   |
| ि        |  |   |   |   |   |    |   |            |          |            |              | -  |             |                             |     |
| >        |  |   |   |   |   |    |   |            |          |            |              |    | -           |                             |     |
| <b>^</b> |  |   |   |   |   |    |   |            |          |            |              |    |             | -                           |     |
| ំ        |  |   |   |   |   |    |   |            |          |            |              |    |             |                             | -   |

Table 11.1. Vertical positioning of multiple diacritics above a single letter when writing Mooré. Empty cells are linguistically impossible.

As mentioned earlier under Table 7, the below vowel-marks (Masturga  $\underline{\ }$ , Masgõdga  $\underline{\ }$ / $\underline{\ }$ , and Mastẽkre  $\underline{\ }$ ) cannot be combined with the vowel-diacritics (Abila  $\underline{\ }$ , Sobila  $\underline{\ }$ , Hõbila  $\underline{\ }$ , Zībila  $\underline{\ }$ , Dibila  $\underline{\ }$ , and Zoabila  $\underline{\ }$ ).

Therefore, the below vowel-marks can be combined with the following single-diacritics:

|          | ্         | ³ ः        | 3 ं        | ा | <u>အ</u><br>် | ੌ   | >          | î        | •  |
|----------|-----------|------------|------------|---|---------------|-----|------------|----------|----|
|          | <u></u>   | 3          | <b>3</b>   | Ī | <b>20</b>     | ੋ   | č          | î        | •  |
| <u> </u> | <u></u> [ | 301        | 1 3° L     |   | _<br>_<br>_   |     | <u>ृ</u>   | <u> </u> |    |
| ृ        | ृ         | <b>3</b> ι | <b>ា</b> ខ | ا | ్             | ृ   | ، د        | ्रे<br>र | ٠, |
| ়        | <u>ি</u>  | 3 •        | 3 •        | · | ்<br>•        | ੌ · | <b>`</b> • | î.       | •  |

Table 11.2 Linguistically valid combinations of the below vowel-marks and diacritics.

Finally, below are all of the linguistically possible combinations for below-vowel marks with multiple diacritics above a letter:

|          | 31.          | ाध    | ्र            | ार       | ीं       | ाह   | <b>3</b> ខ្ល | <b>3</b> [○ | ः     | 3<○   | <b>3</b> ►   | ाह   | ្ខខ្    | ु इ  | ः <६        | > <b>.</b> | ુ•દ  | ्र       | ृ        | *>           | े>ह   | *<br>`        |
|----------|--------------|-------|---------------|----------|----------|------|--------------|-------------|-------|-------|--------------|------|---------|------|-------------|------------|------|----------|----------|--------------|-------|---------------|
| <u>_</u> | 3।ः ।        | ३(ः । | <u>।</u><br>अ | >[ि      | <u>्</u> | । ाह | 3 🏻          | 3ि।         | । ः   | 3<ः । | 3 <b>∙</b>   | । ाध | उक्° ।  | 3ि।  | <b>ा</b> <६ | 3<○        | 3►   | <u>ু</u> | <u>ু</u> | \$> <u> </u> | ३<ः । | <sup>28</sup> |
| ្ន       | <b>1</b> ) [ | । ाः  | ]<br>]<br>[   | <b>.</b> | ાં ા     | 1 ाः | ា ិខ៖        | 1 ा         | 1 ः∢  | 1 ः   | ا <u>.</u>   | 1018 | 1 ेहं ६ | ]្្រ | 1 ः         | ١٠>٤       | ٦٠   | ]<br>[   | ]្ែ      | 1 ે∢્        | 1 >∢  | ្ទី           |
| ृ        | ાદ           | ) ाह  | ា្រំ          | ۰۱)<     | ۰۱)،     | 3 ा€ | 3 क्ॄि ८     | 3િ ∟        | ۱ ○<3 | 3<○ ι | 3 <b>-</b> ℃ | ગ ાદ | 3ខិ្ ∟  | ું દ | າ ◌<€       | ى ⊳3       | ુ ∙દ | ्रा      | ्र ेिइ   | ا <ډ         | ગ >>દ | ي<br>د<br>د   |
| ়        | 3ા •         | ૩ાૄ • | े अ           | >ে•      | ্ে•      | 3।ः  | <b>૩</b> ૄ૽  | 3 ि •       | 3>○・  | 3<○・  | ુ* •         | ₃। · | 380 •   | ₃[ः  | ₃>ः         | 3<○・       | ુ•   | <u>a</u> | ু<br>•   | å><br>•      | ३<ः   | <b>¾</b><br>• |

Table 11.3 Linguistically valid combinations of below vowel-marks and multi-diacritic pairs above a letter.

## Miscellaneous & Punctuation

A character named "Woglogo" in the Minim Dag Noore script extends the length of a letter. It is written on the baseline and can be used when only writing in lowercase letters. It looks the same in RTL and LTR text.

|         | Evampla            |           | Lengther  | er positio     | on when a | attached | l to letter | + another letter (RA)                  |
|---------|--------------------|-----------|-----------|----------------|-----------|----------|-------------|--|
| Woglogo | Example<br>Letters | Direction | Isolated  | Initial        | Both      | Final    | Isolated    | RTL: جع LTR: جد                        |
|         | Letters            |           | - Initial | IIIICIGI       | sides     | Tillai   | - Final     | 72                                     |
|         |                    | RTL<br>Æ  | _ ئـ      | ۔£             | _£_       | ٤_       | <u>گ</u> _  | ٤                                      |
|         | SA /s/             | LTR<br>£  | _ &       | <b>_£</b> .    | _£_       | ٤        | ٤           | <del>کے</del>                          |
| _       | NAA /s/            | RTL<br>سے | ـ ي       | <u>ــ</u> ــــ |           |          | <u>ب</u>    | ســـــــــــــــــــــــــــــــــــــ |
|         | MA /s/             | LTR<br>エ  | _ 1       |                |           | π        | <b>ル</b> _  | л                                      |

Table 12. Minim Dag Noore script letter lengthener.

The Minim Dag Noore script has a character called Baare (which looks like: ) which is used for multiple purposes: as a period, comma, and/or a paragraph/section separator. See Figures 10 and 22 in Section IX for examples.

## Minim Dag Noore when writing the Arabic language

Minim Dag Noore can be, and is, used to write the Arabic language in addition to Mooré. The most famous Arabic-language publication by the Minim Dag Noore community is a transliteration of the Qur'an. The sinistrograde script (RTL) is used to write Arabic. While capital letters can technically be used to write Arabic, lowercase letters are much more common. The phonetic value of several Minim Dag Noore letters changes when the script is used to write Arabic.

| Name    | RTL L                                  | etters                   | Original Letter IPA for Mooré   | New IPA for the              | Arabic-script |
|---------|--|--------------------------|---|------------------------------|---------------|
| Ivallie | Lowercase                              | Uppercase                |   | letter                       | equivalent    |
| PAHE    |  | 氢                        | /p/   | /ħ/                          | ح             |
| VATE    | 毫                                      | ً                        | /v/   | /tና/                         | ط             |
| NGAS    | ā                                      | 5                        | /g/, if occurring after [ŋ]   | /s <sup>ç</sup> /            | ص             |
| QAX     | یَ                                     | Ē                        | [k], [ɣ] and possibly [gj] as allophones of /g/, [kj] as allophone of /k/ | /q/                          | ق             |
| SANG    | $ar{\mathcal{R}}_{\boldsymbol{\iota}}$ | Æ                        | /ŋ/   | /0/                          | ث             |
| GA      | يَ                                     | Ċ                        | /g/   | /ɣ/                          | غ.            |
| Al      | -a                                     | a<br>I                   | Vowel diacritic Ai ('a)   | /۶/                          | ع             |
| СНО     | نہ                                     | ī                        | Vowel diacritic Cho (Šū')   | /ʃ/                          | ش             |
| HON     | -<br><b>ن</b>                          | Î                        | Vowel diacritic Hon (Ḥū')   | /x/                          | خ             |
| JUN     | <u>ت</u><br><b>د</b> ،                 | <u>.</u>                 | Vowel diacritic Jun (D̄ī')  | /ð/                          | ذ             |
| DU      | <u>۔</u>                               | <u>ਦ</u><br>             | Vowel diacritic Du (D̄ī')   | /d <sup>ç</sup> /            | ض             |
| ZOA     | ق ک                                    | <del>9</del><br><b>I</b> | Vowel diacritic Zoa (Za)  | /ðʕ/                         | ظ             |
| ΥI      | ٠,                                     | Ϋ                        | /j/ + diacritic   | /?/ preceded by<br>/i/       | ئ             |
| WOU     | Å                                      | Ž                        | /w/ + diacritic   | /?/ preceded by<br>/u/       | ؤ             |
| A YI    | .₽X                                    | $\overline{\Omega}$      | -   | Arabic alif<br>maqşūrah uses | ی             |
| ΥI      | <b>بر</b>                              | Λ                        | word-initial vowel YI - /j/   | /ʔi/                         | Į             |

Table 13. Note that the remaining Minim Dag Noore letters are also used to write Arabic and have the same phonetic value as when they are used for Mooré.

#### Numbers

There are two sets of digits (both are base 10), and a set of mathematical numbers used in the Minim Dag Noore script. When representing multi-digit numbers, both sets of digits have the least-significant number on the right and the most-significant number on the left, and numbers increase in significance as you go from right-to-left, similar to Arabic and Latin, but opposite to NKo and Adlam. This is true regardless of writing direction; in RTL and LTR, digits increase in significance from right-to-left.

However, it's important to note that the writing direction of text affects how people actually write multidigit numbers. When writing RTL, multi-digit numbers are written in the same manner as in Arabic (i.e., the least-significant digit is written first and the most-significant digit is written last), but when writing LTR, numbers are written in the same manner as English/French/etc. (i.e., the most-significant digit is written first and the least-significant digit is written last); see Figure 39 in Section IX to see an example of this.

The following digits/numerals are the default Minim Dag Noore digits used for most purposes.

| Minim<br>Dag<br>Noore | 0 | ۷ | ¥ | 2 | L | <b>ତ</b> | 8 | ע | ד | ð | ۷0 | ۷0 | ۷00 | 200 |
|-----------------------|---|---|---|---|---|----------|---|---|---|---|----|----|-----|-----|
| Hindu-<br>Arabic      | 0 | 1 | 2 | 3 | 4 | 5        | 6 | 7 | 8 | 9 | 10 | 20 | 100 | 200 |

Table 14. Minim Dag Noore script digits/numerals.

The following digits/numerals are alternates distinctly used in special contexts such as supplicative texts, certain proverbs, secretive writing, or in texts involving the names of God.

| Minim<br>Dag<br>Noore | • | 1 | ۲ | 44 | f | ዋ | 4 | J | n | <b>수</b> | J• | 7. | ]•• | ۲.  |
|-----------------------|---|---|---|----|---|---|---|---|---|----------|----|----|-----|-----|
| Hindu-<br>Arabic      | 0 | 1 | 2 | 3  | 4 | 5 | 6 | 7 | 8 | 9        | 10 | 20 | 100 | 200 |

Table 15. Alternate/special Minim Dag Noore script digits/numerals.

The letters of the Minim Dag Noore script also have numerical value, and are tied to the alternate/special digits in Table 15. This is similar to how the Arabic-speaking world used Arabic Abjad numerals (Arabic: حسّاب المُجُمّل Latin transliteration: hisāb al-jummal). Minim Dag Noore Abjad numerals use all of the basic character inventory, and in the table below you will see how all of the Minim Dag Noore letters needed to write Mooré are used as Abjad numerals, and also six of the modified letters used to write the Arabic

language.

| ianguage.   |                      |               |              | ·                 |               |
|-------------|----------------------|---------------|--------------|-------------------|---------------|
|             | "Minim Dag           | Minim Dag     | Equivalent   | Equivalent Arabic | Abjad Numeral |
| Letter Name | <i>Noore</i> " Abjad | Noore Special | Hindu-Arabic | "Common"          | Maghrebi      |
|             | Numeral              | Digit Value   | Value        | Abjad Order       | Abjad Order   |
|             |                      | _             |              |                   | ,             |
| Α           | ~                    | 1             | 1            | 1                 |               |
|             |                      | J             |              |                   |               |
| BA          | <b>~</b>             | ፕ             | 2            | ب                 |               |
|             | 0.                   | 111           |              |                   |               |
| DJA         | भ                    | <b>"</b>      | 3            | ج                 |               |
|             | 7                    | ٥٢            |              |                   |               |
| DA          | لمہ                  | ዯ             | 4            | د                 |               |
|             | 0                    | •             |              |                   |               |
| HA          | <b>.</b> \$          | ዋ             | 5            | ھ                 |               |
|             |                      |               |              |                   |               |
| WOU         | ~                    | 9             | 6            | و                 |               |
|             |                      | 1.1           |              |                   |               |
| ZA          | প্র                  | U             | 7            | ز                 |               |
|             | _                    |               |              |                   |               |
| PAHE        | ₽,                   | ∩             | 8            | ح                 |               |
|             |                      |               |              |                   |               |
| VATE        | £                    | <b>├</b>      | 9            | ط                 |               |
|             |                      |               |              |                   |               |
| YI          | ج                    | ]•            | 10           | ی                 |               |
|             |                      |               |              |                   |               |
| KA          | <u> </u>             | ۲٠            | 20           | ك                 | ک             |
|             | •                    |               |              |                   |               |
| LA          | ىد                   | ₩•            | 30           | ل                 |               |
|             |                      | 05-           |              |                   |               |
| MA          | سے                   | <b>ተ•</b>     | 40           | م                 |               |
|             | 01                   | 0.            |              |                   |               |
| NA          | <i>l</i> e.          | ዋ•            | 50           | ن                 |               |
|             |                      | 1.4-          |              |                   |               |
| SA          | £                    | ٧٠            | 60           | س                 | ص             |
|             | 13                   | 1.1-          |              |                   |               |
| Al          | 4                    | <b>∪•</b>     | 70           | ع                 |               |
|             | 11                   | 0:            |              |                   |               |
| FA          | للہ                  | <b>∩•</b>     | 80           | ف                 |               |
|             |                      | A -           |              |                   |               |
| NGAS        | $\mathcal{Q}$        | 수•            | 90           | ص                 | ض             |
|             | ^                    | 1             |              |                   |               |
| QAX         | £                    | ]••           | 100          | ق                 |               |
|             |                      |               |              |                   |               |
| RA          | ~≾                   | ፕ።            | 200          | ر                 |               |
|             | ~                    |               |              | ļ                 |               |

| SO   | نہ            | <b>Ψ••</b>   | 300   | m | س |
|------|---------------|--------------|-------|---|---|
| TA   | <b>پ</b>      | <del>4</del> | 400   | ت |   |
| SANG | X.            | φ••          | 500   | ث |   |
| HON  | ؠٛ            | y            | 600   | خ |   |
| JUN  | د<br><b>ل</b> | U••          | 700   | ذ |   |
| DU   | د د           | O••          | 800   | ض | ظ |
| ZOA  | ۳.            | ተ"           | 900   | ظ | غ |
| GA   | 2             | ]•••         | 1,000 | غ | ش |

Table 16. Minim Dag Noore script Abjad numerals; comparison with Arabic-script Abjad numerals. See Figure 38 in Section IX for an example. The letters here represent the full "alphabet" as users learn them.

The Minim Dag Noore system has a mathematical notation system for mathematics as well.

| Minim Dag<br>Noore<br>Mathematical<br>Notation | Hindu-Arabic numerical value  | English short form name   | Power<br>of 10  |
|--|-------------------------------|---|-----------------|
| ۶  | 0                             | zero  |                 |
| I  | 1                             | one   | 100             |
| 0  | 10                            | ten   | 10¹             |
| ়  | +5 to '1' ; +50 to '10'       | adds 5 to the '1' symbol,<br>adds 50 to the '10'<br>symbol. Goes<br>underneath the '1' and<br>'10' symbol |                 |
| _  | 100                           | hundred   | 10 <sup>2</sup> |
| Г  | 1,000                         | thousand  | 10³             |
| ٦  | 1,000,000                     | million   | 10 <sup>6</sup> |
|  | 1,000,000,000                 | billion   | 10 <sup>9</sup> |
|  | 1,000,000,000,000             | trillion  | 1012            |
| Ш  | 1,000,000,000,000,000         | quadrillion   | 1015            |
| П  | 1,000,000,000,000,000,000     | quintillion   | 1018            |
| *  | 1,000,000,000,000,000,000,000 | sextillion  | 1021            |

Table 17. Minim Dag Noore script mathematical notation symbols. See Figures 27 and 35-37 in Section IX for examples.

The following shows how each of the above mathematical notation symbols is used. The notation for one can be written up to 5 times in a row, each increasing its value. Afterwards, a dot is written below a single symbol to represent 6. Another line is written after the line+dot combination to represent 7. This pattern repeats until 9. The same pattern applies to 10-90. 100 is represented with a horizontal line, and can be horizontally stacked up to 3 times to represent up to 300. Afterwards, a second column of one additional horizontal line appears to the left of the previous 3 horizontal bars to represent 400. This column can also be stacked up to 3 times to represent 600 in total. The process repeats until 900.

| Hindu-Arabic<br>numerical<br>value             | 0 | 1   | 2   | 3   | 4         | 5     | 6         | 7   | 8         | 9   |
|--|---|-----|-----|-----|-----------|-------|-----------|-----|-----------|-----|
| Minim Dag<br>Noore<br>Mathematical<br>Notation | M | 1   | II  | Ш   | IIII      | IIIII | ļ         | İ   | <u>II</u> | í≡  |
| Hindu-Arabic<br>numerical<br>value             |   | 10  | 20  | 30  | 40        | 50    | 60        | 70  | 80        | 90  |
| Minim Dag<br>Noore<br>Mathematical<br>Notation |   | 0   | 00  | 000 | 0000      | 00000 | ō         | 00  | 00        | 000 |
| Hindu-Arabic<br>numerical<br>value             |   | 100 | 200 | 300 | 400       | 500   | 600       | 700 | 800       | 900 |
| Minim Dag<br>Noore<br>Mathematical<br>Notation |   | -   | =   | Ш   | <b>-≡</b> | =≡    | <b>==</b> | -≡≡ | =≡≡       | ≡≡≡ |

Table 18. Illustration of how the Minim Dag Noore script mathematical notation system works. It's **important to note** that 7, 9, 70, and 90 have dots that appear *between* the lines/circles on the bottom, rather than directly below the lines/circles (as it occurs for 6, 8, 60, and 80). Also note the vertical position of a new column of horizontal bars for the hundreds numerals.

The higher magnitude symbols are shown below. It is used similar to a digit system.

| Higher Magnitude Minim Dag Noore<br>Mathematical Notation | Hindu-Arabic numerical value  | Equivalent Scientific Notation |
|---|-------------------------------|--------------------------------|
| IL  | 1,000                         | 1x10³                          |
| П   | 1,000,000                     | 1x10 <sup>6</sup>              |
| IC  | 1,000,000,000                 | 1x10°                          |
|   | 1,000,000,000,000             | 1x10 <sup>12</sup>             |
| Ш   | 1,000,000,000,000,000         | 1x10 <sup>15</sup>             |
| П   | 1,000,000,000,000,000,000     | 1x10 <sup>18</sup>             |
| l★  | 1,000,000,000,000,000,000,000 | 1x10 <sup>21</sup>             |

Table 19. Mathematical notation symbols of higher magnitude.

# Symbols

| Name  | Symbol | Used to write | Example               |
|-------|--------|---------------|-----------------------|
| Daya  | 0      | Days          | <b>%</b> ₹00% ⊝₹₹ 0₹% |
| Kiisi | y      | Months        | 2006 11 23            |
| Yuuma | *      | Years         |                       |

Table 20. See Figures 27 and 32 in Section IX for examples.

The Minim Dag Noore script uses the following parentheses.

| Tãblebnde (Right Parenthesis) | Tãppo (Left Parenthesis) | LTR Example | Equivalent |
|-------------------------------|--------------------------|-------------|------------|
| É                             |                          | <b>EX2</b>  | (25)       |

Table 21. Minim Dag Noore script parentheses. See Figures 2, 6, and 11 in Section IX for examples.

# IV Character Repertoire

Below is the character repertoire to encode. The glyphs represented below are the RTL rendering of the script. It should be noted that the forms vary in appearance when written LTR. This variation is handled during text rendering rather than with separate encoding. Type designers should note these differences when developing typefaces to support both RTL and LTR versions of the script.

| Character | Unicode Name   |
|-----------|--|
| Λ         | U+1X000 MINIM DAG NOORE CAPITAL LETTER A               |
| g         | U+1X001 MINIM DAG NOORE CAPITAL LETTER BA              |
| <u> </u>  | U+1X002 MINIM DAG NOORE CAPITAL LETTER DJA             |
| 4         | U+1X003 MINIM DAG NOORE CAPITAL LETTER DA              |
| X         | U+1X004 MINIM DAG NOORE CAPITAL LETTER HA              |
| 2         | U+1X005 MINIM DAG NOORE CAPITAL LETTER WOU             |
| Ю         | U+1X006 MINIM DAG NOORE CAPITAL LETTER ZA              |
| X         | U+1X007 MINIM DAG NOORE CAPITAL LETTER PAHE            |
| Z         | U+1X008 MINIM DAG NOORE CAPITAL LETTER VATE            |
| Ω         | U+1X009 MINIM DAG NOORE CAPITAL LETTER YI              |
| 2         | U+1X00A MINIM DAG NOORE CAPITAL LETTER KA              |
| Ю         | U+1X00B MINIM DAG NOORE CAPITAL LETTER LA              |
| m         | U+1X00C MINIM DAG NOORE CAPITAL LETTER MA              |
| 91        | U+1X00D MINIM DAG NOORE CAPITAL LETTER NA              |
| E         | U+1X00E MINIM DAG NOORE CAPITAL LETTER SA              |
| U         | U+1X00F MINIM DAG NOORE CAPITAL LETTER FA              |
| ວ         | U+1X010 MINIM DAG NOORE CAPITAL LETTER NGAS            |
| G         | U+1X011 MINIM DAG NOORE CAPITAL LETTER QAX             |
| Z         | U+1X012 MINIM DAG NOORE CAPITAL LETTER RA              |
| Ψ         | U+1X013 MINIM DAG NOORE CAPITAL LETTER TA              |
| Ю         | U+1X014 MINIM DAG NOORE CAPITAL LETTER SANG            |
| C         | U+1X015 MINIM DAG NOORE CAPITAL LETTER GA              |
| Λ         | U+1X016 MINIM DAG NOORE CAPITAL WORD INITIAL VOWEL YI  |
| A         | U+1X017 MINIM DAG NOORE CAPITAL WORD INITIAL VOWEL WOU |
| I         | U+1X018 MINIM DAG NOORE TAKBEDRE                       |
| ı         | U+1X019 MINIM DAG NOORE ZAOUBEDRE                      |
| ~^        | U+1X01A MINIM DAG NOORE SMALL LETTER A                 |

| م             | U+1X01B MINIM DAG NOORE SMALL LETTER BA              |
|---------------|--|
| স             | U+1X01C MINIM DAG NOORE SMALL LETTER DJA             |
| لمہ           | U+1X01D MINIM DAG NOORE SMALL LETTER DA              |
| 2             | U+1X01E MINIM DAG NOORE SMALL LETTER HA              |
| ھ             | U+1X01F MINIM DAG NOORE SMALL LETTER WOU             |
| 의             | U+1X020 MINIM DAG NOORE SMALL LETTER ZA              |
| ₽,            | U+1X021 MINIM DAG NOORE SMALL LETTER PAHE            |
| 2             | U+1X022 MINIM DAG NOORE SMALL LETTER VATE            |
| ત્ર           | U+1X023 MINIM DAG NOORE SMALL LETTER YI              |
| न             | U+1X024 MINIM DAG NOORE SMALL LETTER KA              |
| ىد            | U+1X025 MINIM DAG NOORE SMALL LETTER LA              |
| سے            | U+1X026 MINIM DAG NOORE SMALL LETTER MA              |
| IL.           | U+1X027 MINIM DAG NOORE SMALL LETTER NA              |
| 3.            | U+1X028 MINIM DAG NOORE SMALL LETTER SA              |
| للہ           | U+1X029 MINIM DAG NOORE SMALL LETTER FA              |
| 2             | U+1X02A MINIM DAG NOORE SMALL LETTER NGAS            |
| 2.            | U+1X02B MINIM DAG NOORE SMALL LETTER QAX             |
| *             | U+1X02C MINIM DAG NOORE SMALL LETTER RA              |
| *             | U+1X02D MINIM DAG NOORE SMALL LETTER TA              |
| X.            | U+1X02E MINIM DAG NOORE SMALL LETTER SANG            |
| 2             | U+1X02F MINIM DAG NOORE SMALL LETTER GA              |
| ন্ব           | U+1X030 MINIM DAG NOORE SMALL WORD INITIAL VOWEL YI  |
| <del>~2</del> | U+1X031 MINIM DAG NOORE SMALL WORD INITIAL VOWEL WOU |
| ^             | U+1X032 MINIM DAG NOORE ABASGA                       |
| ٤             | U+1X033 MINIM DAG NOORE YIBASGA                      |
| ·             | U+1X034 MINIM DAG NOORE WUBASGA                      |
| l             | U+1X035 MINIM DAG NOORE TAKZISGO                     |
| _             | U+1X036 MINIM DAG NOORE ZAOUGA                       |
| _             | U+1X037 MINIM DAG NOORE OLD ZAOUGA                   |
| L             |  |

| 0            | U+1X038 MINIM DAG NOORE DIGIT ZERO                   |
|--------------|--|
| L            | U+1X039 MINIM DAG NOORE DIGIT ONE                    |
| X            | U+1X03A MINIM DAG NOORE DIGIT TWO                    |
| 2            | U+1X03B MINIM DAG NOORE DIGIT THREE                  |
| 2            | U+1X03C MINIM DAG NOORE DIGIT FOUR                   |
| 9            | U+1X03D MINIM DAG NOORE DIGIT FIVE                   |
| 8            | U+1X03E MINIM DAG NOORE DIGIT SIX                    |
| F            | U+1X03F MINIM DAG NOORE DIGIT SEVEN                  |
| 9            | U+1X040 MINIM DAG NOORE DIGIT EIGHT                  |
| 6            | U+1X041 MINIM DAG NOORE DIGIT NINE                   |
| •            | U+1X042 MINIM DAG NOORE ALTERNATE DIGIT ZERO         |
| 1            | U+1X043 MINIM DAG NOORE ALTERNATE DIGIT ONE          |
| ٢            | U+1X044 MINIM DAG NOORE ALTERNATE DIGIT TWO          |
| Ψ            | U+1X045 MINIM DAG NOORE ALTERNATE DIGIT THREE        |
| f            | U+1X046 MINIM DAG NOORE ALTERNATE DIGIT FOUR         |
| P            | U+1X047 MINIM DAG NOORE ALTERNATE DIGIT FIVE         |
| 7            | U+1X048 MINIM DAG NOORE ALTERNATE DIGIT SIX          |
| U            | U+1X049 MINIM DAG NOORE ALTERNATE DIGIT SEVEN        |
| Λ            | U+1X04A MINIM DAG NOORE ALTERNATE DIGIT EIGHT        |
| <del>↑</del> | U+1X04B MINIM DAG NOORE ALTERNATE DIGIT NINE         |
| ۶            | U+1X04C MINIM DAG NOORE MATHEMATICAL ZERO            |
| I            | U+1X04D MINIM DAG NOORE MATHEMATICAL ONE             |
| 0            | U+1X04E MINIM DAG NOORE MATHEMATICAL TEN             |
| ়            | U+1X04F MINIM DAG NOORE MATHEMATICAL FIVE MULTIPLIER |
| _            | U+1X050 MINIM DAG NOORE MATHEMATICAL HUNDRED         |
| Г            | U+1X051 MINIM DAG NOORE MATHEMATICAL THOUSAND        |
| ٦            | U+1X052 MINIM DAG NOORE MATHEMATICAL MILLION         |
|              | U+1X053 MINIM DAG NOORE MATHEMATICAL BILLION         |
|              | U+1X054 MINIM DAG NOORE MATHEMATICAL TRILLION        |
|              |  |

| Ш         | U+1X055 MINIM DAG NOORE MATHEMATICAL QUADRILLION |
|-----------|--|
| П         | U+1X056 MINIM DAG NOORE MATHEMATICAL QUINTILLION |
| *         | U+1X057 MINIM DAG NOORE MATHEMATICAL SEXTILLION  |
| े         | U+1X058 MINM DAG NOORE ABILA                     |
| <u>.</u>  | U+1X059 MINM DAG NOORE SOBILA                    |
| ိ         | U+1X05A MINM DAG NOORE HOBILA                    |
| ै         | U+1X05B MINM DAG NOORE ZIBILA                    |
| ্         | U+1X05C MINM DAG NOORE DIBILA                    |
| ្ន        | U+1X05D MINM DAG NOORE ZOABILA                   |
| ি         | U+1X05E MINIM DAG NOORE TAKRE                    |
| <u> </u>  | U+1X05F MINIM DAG NOORE MASTIRGA                 |
| ្ន        | U+1X060 MINM DAG NOORE MASGODGA UPPERCASE        |
| ृ         | U+1X061 MINIM DAG NOORE MASGODGA LOWERCASE       |
| ়         | U+1X062 MINIM DAG NOORE MASTEKRE                 |
| <u> </u>  | U+1X063 MINM DAG NOORE KENGRE                    |
|           | U+1X064 MINM DAG NOORE GODGA                     |
| ੋ         | U+1X065 MINM DAG NOORE TIRGA                     |
| ঁ         | U+1X066 MINM DAG NOORE YIKRE                     |
| ੋ         | U+1X067 MINM DAG NOORE KUUGA                     |
| š         | U+1X068 MINM DAG NOORE GEMGANGO                  |
| े         | U+1X069 MINM DAG NOORE PIRGU                     |
| ं         | U+1X06A MINM DAG NOORE ZILIMBILA                 |
| _         | U+1X06B MINM DAG NOORE WOGLOGO                   |
| 0         | U+1X06C MINIM DAG NOORE DAYA                     |
| $\forall$ | U+1X06D MINM DAG NOORE KIISI                     |
| *         | U+1X06E MINM DAG NOORE YUUMA                     |
| •         | U+1X06F MINIM DAG NOORE BAARE                    |
| P         | U+1X070 MINM DAG NOORE TAPPO                     |
|           | U+1X071 MINM DAG NOORE TABLEBNDE                 |

Table 22. Character repertoire of the Minim Dag Noore script.

# Chart

|   | U+1X00   | U+1X01 | U+1X02     | U+1X03        | U+1X04 | U+1X05   | U+1X06    | U+1X07 |
|---|----------|--------|------------|---------------|--------|----------|-----------|--------|
| 0 | Λ        | ົວ     | প্র        | <b>ત</b>      | צ      | _        | ្ម        |        |
| 1 | ۵        | C      | -Ş         | <del>-2</del> | 6      | Г        | ्         | AB)    |
| 2 | <u>a</u> | Z      | 2          | ^             | •      | ٦        | ়         |        |
| 3 | <u>ል</u> | ¥      | ત્ર        | ٤             | 1      |          | <b>3</b>  |        |
| 4 | X        | Ю      | F          | ·             | ٢      |          | ँ         |        |
| 5 | 2        | U      | ىد         | l             | 4      | Ц        | ੋ         |        |
| 6 | Ю        | Λ      | <u>س</u>   | _             | f      | П        | <b>29</b> |        |
| 7 | X        | A      | <i>I</i> L | _             | ዋ      | *        | ੋ         |        |
| 8 | Z        | I      | £          | 0             | 4      | a .      | č         |        |
| 9 | Ω        | ı      | للہ        | ۷             | U      | ்        | î         |        |
| Α | 2        | ~      | 2          | Z             | n      | ိ        | ঁ         |        |
| В | Ю        | ٩      | ی          | Z             | 个      | ិ        | _         |        |
| С | Ш        | भ      | ~∴         | L             | ۶      | ៉        | 0         |        |
| D | 91       | لمہ    | ۲.         | 9             | I      | ្        | Y         |        |
| Е | E        | 2      | Ж          | 8             | 0      | ি        | *         |        |
| F | U        | م      | ٤          | F             | ়      | <u> </u> | •         |        |

#### Additional information on characters

## Joining information

- The bottom of all lowercase letters can join together on both sides.
- Uppercase letters never join together.
- Word initial vowel letters (SMALL WORD INITIAL VOWEL YI; SMALL WORD INTIAL VOWEL WOU) connect on both sides as well.
- Word-final letters connect as well: ABASGA; WUBASGA; and YIBASGA connect on the right (as they are used in RTL text), and LEFT ABASGA; LEFT WUBASGA; and LEFT YIBASGA connect on the left (as they are used in LTR text).
- Vowel-diacritic holders connect on both sides (ZAOUGA; OLD ZAOUGA; LEFT ZAOUGA; and OLD LEFT ZAOUGA).
- The long-vowel grapheme TAKZISGO connects on the right (as it is used in RTL text) and LEFT TAKZISGO connects on the left (as it is used in LTR text).
- The letter connector/extender WOGLOGO connects on both sides.

| Lattar | RTL   |          |          |          | LTR |          |              |            |          |
|--------|-------|----------|----------|----------|-----|----------|--------------|------------|----------|
| Letter | Final | Medial   | Initial  | Isolated |     | Isolated | Initial      | Medial     | Final    |
| А      | ~     | ^        | <b>۲</b> | ۲        |     | S.       | <i>&amp;</i> | ٨          | s        |
| ВА     | مہ    | ۵        | ٩        | 4        |     | م        | ۵.           | ۵          | þ        |
| DJA    | भ     | <u>a</u> | म        | <u>a</u> |     | ۍ        | ڡ            | ع          | عد       |
| DA     | لمہ   | ٨        | ۵        | لم       |     | مہ       | ۵            | ہ          | ۵        |
| НА     | 2     | <u>x</u> | 2        | 2        |     | &.       | 2            | &          | &        |
| WOU    | م     | Ą        | 47       | م        |     | 9        | Э            | <b>.</b> 9 | 9        |
| ZA     | ਕ     | <u></u>  | 의        | প্র      |     | X.       | ×            | ×          | X.       |
| PAHE   | 2g    | \$       | Ş        | 2        |     | &        | 8            | 8          | &        |
| VATE   | 2     | £        | £        | 2        |     | 2.       | <u>\$</u>    | S.         | \$.      |
| YI     | જ     | ٠        | Ç        | ક        |     | 2        | മ            | a          | م        |
| KA     | ত্র   | <u> </u> | न        | <b>9</b> |     | 2        | <u>Q</u>     | 2          | 见        |
| LA     | عد    | بع       | با       | ىد       |     | بع       | بع           | بح         | بعر      |
| MA     | س.    | ىلىـ     | ш        | سے       |     | <b>ル</b> | 兀            | エ          | <b>ル</b> |
| NA     | Æ     | Æ        | R        | IL.      |     | ىلا      | ЭL           | ЭL         | ىلا      |
| SA     | £     | £        | £        | £        |     | ٤        | ٤            | ٤          | ٤        |
| FA     | لله   | Ж        | ll.      | للہ      |     | ٨        | L            | <b>JL</b>  | <b>J</b> |

|  |          | 1        |   | I              | I              | 1            |   |    |
|--|----------|----------|---|----------------|----------------|--------------|---|----|
| NGAS                                     | 2        | 2        | 2 | 2              | 2.             | 2            | ユ | 2. |
| QAX                                      | ی        | e        | £ | ی              | ٤              | ٤            | 식 | ی  |
| RA                                       | <b>☆</b> | <b>*</b> | な | -3             | *              | ঠ            | ょ | 4  |
| TA                                       | *        | 7        | * | <b>پ</b> د     | 上              | 上            | 火 | 火  |
| SANG                                     | K        | K        | Ж | Ж              | P.             | æ            | Æ | æ  |
| GA                                       | 2        | 2        | 2 | 2              | 2              | 2            | 7 | 2  |
| SMALL<br>WORD<br>INITIAL<br>VOWEL YI     |          | ત        | ส | <b>ب</b> ر     | ħ              | b.           | h |    |
| SMALL<br>WORD<br>INITIAL<br>VOWEL<br>WOU |          |          | 2 | ~ <del>2</del> | <del>2</del> - | <del>2</del> |   |    |
| ABASGA                                   | •        |          |   | •              | •              |              |   | _  |
| YIBASGA                                  | ٤        |          |   | بع             | 3              |              |   | 3  |
| WUBASGA                                  |          |          |   | L              | ٠              |              |   | -  |
| ZAOUGA                                   | <b>ئ</b> | _        | _ | <b>د.</b>      | <u> </u>       | _            | 4 | 4  |
| OLD<br>ZAOUGA                            | ~        | ~        | ~ | ~_             | -              | -            | _ | -  |

Table 23: Positional forms for the Minim Dag Noore script.

# The Isolated forms are used in the character repertoire table (Table 22) and the Code Chart.

# Punctuation

See Section III, subsection "Miscellaneous".

## Numbers

See Section III, subsection "Numbers".

# **V** Properties

## General Category and other properties

```
U+1X000; MINIM DAG NOORE CAPITAL LETTER A; Lo; 0; R; ;; ;; ;N; ;; ;;
U+1X001; MINIM DAG NOORE CAPITAL LETTER BA; Lo; 0; R;;;;; N;;;;
U+1X002; MINIM DAG NOORE CAPITAL LETTER DJA; Lo; 0; R; ;; ;; N; ;; ;;
U+1X003; MINIM DAG NOORE CAPITAL LETTER DA; Lo; 0; R;;;;; N;;;;
U+1X004; MINIM DAG NOORE CAPITAL LETTER HA; Lo; 0; R;;;;; N;;;;
U+1X005; MINIM DAG NOORE CAPITAL LETTER WOU; Lo; 0; R;;;;; N;;;;
U+1X006; MINIM DAG NOORE CAPITAL LETTER ZA; Lo; 0; R;;;;; N;;;;
U+1X007; MINIM DAG NOORE CAPITAL LETTER PAHE; Lo; 0; R;;;;; N;;;;;
U+1X008; MINIM DAG NOORE CAPITAL LETTER VATE; Lo; 0; R;;;;; N;;;;;
U+1X009; MINIM DAG NOORE CAPITAL LETTER YI; Lo; 0; R;;;;; N;;;;;
U+1X00A; MINIM DAG NOORE CAPITAL LETTER KA; Lo; 0; R;;;;; N;;;;
U+1X00B; MINIM DAG NOORE CAPITAL LETTER LA; Lo; 0; R;;;;; N;;;;
U+1X00C; MINIM DAG NOORE CAPITAL LETTER MA; Lo; 0; R;;;;; N;;;;;
U+1X00D; MINIM DAG NOORE CAPITAL LETTER NA; Lo; 0; R;;;;; N;;;;
U+1X00E; MINIM DAG NOORE CAPITAL LETTER SA; Lo; 0; R;;;;; N;;;;;
U+1X00F; MINIM DAG NOORE CAPITAL LETTER FA; Lo; 0; R;;;;; N;;;;
U+1X010; MINIM DAG NOORE CAPITAL LETTER NGAS; Lo; 0; R;;;;; N;;;;;
U+1X011; MINIM DAG NOORE CAPITAL LETTER QAX; Lo; 0; R;;;;; N;;;;
U+1X012; MINIM DAG NOORE CAPITAL LETTER RA; Lo; 0; R;;;;; N;;;;
U+1X013; MINIM DAG NOORE CAPITAL LETTER TA; Lo; 0; R;;;;; N;;;;
U+1X014; MINIM DAG NOORE CAPITAL LETTER SANG; Lo; 0; R;;;;; N;;;;;
U+1X015; MINIM DAG NOORE CAPITAL LETTER GA; Lo; 0; R;;;;; N;;;;
U+1X016; MINIM DAG NOORE CAPITAL WORD INITIAL VOWEL YI;0;R;;;;;N;;;;;
U+1X017; MINIM DAG NOORE CAPITAL WORD INITIAL VOWEL WOU; 0; R;;;;; N;;;;;
U+1X018; MINIM DAG NOORE CAPITAL TAKBEDRE; Lo; 0; R; ;; ;; N; ;; ;;
U+1X019; MINIM DAG NOORE CAPITAL ZAOUBEDRE; Lo; 0; R;;;;; N;;;;
U+1X01A; MINIM DAG NOORE SMALL LETTER A; Lo; 0; R;;;;; N;;;;;
U+1X01B; MINIM DAG NOORE SMALL LETTER BA; Lo; 0; R;;;;; N;;;;;
U+1X01C; MINIM DAG NOORE SMALL LETTER DJA; Lo; 0; R;;;;; N;;;;;
U+1X01D; MINIM DAG NOORE SMALL LETTER DA; Lo; 0; R;;;;; N;;;;
U+1X01E; MINIM DAG NOORE SMALL LETTER HA; Lo; 0; R;;;;; N;;;;
U+1X01F; MINIM DAG NOORE SMALL LETTER WOU; Lo; 0; R;;;;; N;;;;;
U+1X020; MINIM DAG NOORE SMALL LETTER ZA; Lo; 0; R;;;;; N;;;;
U+1X021; MINIM DAG NOORE SMALL LETTER PAHE; Lo; 0; R;;;;; N;;;;
U+1X022; MINIM DAG NOORE SMALL LETTER VATE; Lo; 0; R;;;;; N;;;;
U+1X023; MINIM DAG NOORE SMALL LETTER YI; Lo; 0; R;;;;; N;;;;;
U+1X024; MINIM DAG NOORE SMALL LETTER KA; Lo; 0; R;;;;; N;;;;;
U+1X025; MINIM DAG NOORE SMALL LETTER LA; Lo; 0; R;;;;; N;;;;
U+1X026; MINIM DAG NOORE SMALL LETTER MA; Lo; 0; R;;;;; N;;;;;
U+1X027; MINIM DAG NOORE SMALL LETTER NA; Lo; 0; R;;;;; N;;;;;
U+1X028; MINIM DAG NOORE SMALL LETTER SA; Lo; 0; R;;;;; N;;;;;
U+1X029; MINIM DAG NOORE SMALL LETTER FA; Lo; 0; R;;;;; N;;;;
U+1X02A; MINIM DAG NOORE SMALL LETTER NGAS; Lo; 0; R;;;;; N;;;;
U+1X02B;MINIM DAG NOORE SMALL LETTER QAX;Lo;0;R;;;;;N;;;;;
U+1X02C; MINIM DAG NOORE SMALL LETTER RA; Lo; 0; R;;;;; N;;;;;
U+1X02D; MINIM DAG NOORE SMALL LETTER TA; Lo; 0; R;;;;; N;;;;;
U+1X02E; MINIM DAG NOORE SMALL LETTER SANG; Lo; 0; R;;;;; N;;;;
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U+1X02F;MINIM DAG NOORE SMALL LETTER GA;Lo;0;R;;;;;N;;;;;
U+1X030; MINIM DAG NOORE SMALL WORD INITIAL VOWEL YI; Lo; 0; R;;;;; N;;;;
U+1x031; MINIM DAG NOORE SMALL WORD INITIAL VOWEL WOU; Lo; 0; R;;;;; N;;;;;
U+1X032; MINIM DAG NOORE ABASGA; Lo; 0; R;;;;; N;;;;;
U+1X033; MINIM DAG NOORE YIBASGA; Lo; 0; R;;;;; N;;;;
U+1X034; MINIM DAG NOORE WUBASGA; Lo; 0; R; ; ; ; ; N; ; ; ; ;
U+1X035; MINIM DAG NOORE TAKZISGO; Lo; 0; R;;;;; N;;;;;
U+1X036; MINIM DAG NOORE ZAOUGA; Lo; 0; R;;;;; N;;;;;
U+1X037; MINIM DAG NOORE OLD ZAOUGA; Lo; 0; R;;;;; N;;;;
U+1X038; MINIM DAG NOORE DIGIT ZERO; Nd; 0; ON; ; 0; 0; 0; N; ; ; ; ;
U+1X039; MINIM DAG NOORE DIGIT ONE; Nd; 0; ON; ; 1; 1; 1; N; ; ; ; ;
U+1X03A; MINIM DAG NOORE DIGIT TWO; Lo; 0; ON; ; 2; 2; 2; N; ; ; ; ;
U+1X03B;MINIM DAG NOORE DIGIT THREE;Lo;0;ON;;3;3;3;N;;;;;
U+1X03C;MINIM DAG NOORE DIGIT FOUR;Lo;0;ON;;4;4;4;N;;;;;
U+1X03D; MINIM DAG NOORE DIGIT FIVE; Lo; 0; ON; ;5;5;5; N;;;;;
U+1X03E; MINIM DAG NOORE DIGIT SIX; Lo; 0; ON; ; 6; 6; 6; N; ; ; ; ;
U+1X03F; MINIM DAG NOORE DIGIT SEVEN; Lo; 0; ON; ; 7; 7; 7; N; ; ; ; ;
U+1X040; MINIM DAG NOORE DIGIT EIGHT; Lo; 0; ON; ; 8; 8; 8; N; ; ; ; ;
U+1X041; MINIM DAG NOORE DIGIT NINE; Lo; 0; ON; ;9;9;9;N;;;;;
U+1X042; MINIM DAG NOORE ALTERNATE DIGIT ZERO; Lo; 0; ON; ; 0; 0; 0; N;;;;;
U+1X043; MINIM DAG NOORE ALTERNATE DIGIT ONE; Lo; 0; ON; ;1;1;1;N;;;;;
U+1X044; MINIM DAG NOORE ALTERNATE DIGIT TWO; Lo; 0; ON; ; 2; 2; 2; N;;;;;
U+1X045; MINIM DAG NOORE ALTERNATE DIGIT THREE; Lo; 0; ON; ; 3; 3; 3; N;;;;;
U+1X046; MINIM DAG NOORE ALTERNATE DIGIT FOUR; Lo; 0; ON; ; 4; 4; 4; N;;;;;
U+1X047; MINIM DAG NOORE ALTERNATE DIGIT FIVE; Lo; 0; ON; ; 5; 5; 5; N;;;;;
U+1X048; MINIM DAG NOORE ALTERNATE DIGIT SIX; Lo; 0; ON; ; 6; 6; 6; N; ; ; ; ;
U+1X049; MINIM DAG NOORE ALTERNATE DIGIT SEVEN; Lo; 0; ON; ; 7; 7; 7; N; ; ; ; ;
U+1X04A; MINIM DAG NOORE ALTERNATE DIGIT EIGHT; Lo; 0; 0N; ; 8; 8; N; ;;;;
U+1X04B;MINIM DAG NOORE ALTERNATE DIGIT NINE;Nd;0;ON;;9;9;9;N;;;;;
U+1X04C; MINIM DAG NOORE MATHEMATICAL ZERO; Lo; 0; R;;;;; N;;;;;
U+1X04D; MINIM DAG NOORE MATHEMATICAL ONE; Lo; 0; R;;;;; N;;;;;
U+1X04E; MINIM DAG NOORE MATHEMATICAL TEN; Lo; 0; R;;;;; N;;;;;
U+1X04F;MINIM DAG NOORE MATHEMATICAL FIVE MULTIPLIER; Lo; 0; R;;;;; N;;;;
U+1X050; MINIM DAG NOORE MATHEMATICAL HUNDRED; Lo; 0; R;;;;; N;;;;;
U+1X051;MINIM DAG NOORE MATHEMATICAL THOUSAND;Lo;0;R;;;;;N;;;;;
U+1X052; MINIM DAG NOORE MATHEMATICAL MILLION; Lo; 0; R;;;;; N;;;;;
U+1X053;MINIM DAG NOORE MATHEMATICAL BILLION; Lo; 0; R;;;;; N;;;;;
U+1X054; MINIM DAG NOORE MATHEMATICAL TRILLION; Lo; 0; R;;;;; N;;;;;
U+1X055;MINIM DAG NOORE MATHEMATICAL QUADRILLION;Lo;0;R;;;;;N;;;;;
U+1X056; MINIM DAG NOORE MATHEMATICAL QUINTILLION; Lo; 0; R; ;; ;; N; ;; ;;
U+1X057; MINIM DAG NOORE MATHEMATICAL SEXTILLION; Lo; 0; R;;;;; N;;;;;
U+1X058;MINIM DAG NOORE ABILA;Mn;230;ON;;;;;N;;;;
U+1X059; MINIM DAG NOORE SOBILA; Mn; 230; ON; ;;;;; N;;;;
U+1X05A; MINIM DAG NOORE HOBILA; Mn; 230; ON; ;;;; N; ;;;
U+1X05B; MINIM DAG NOORE ZIBILA; Mn; 230; ON; ;;;;; N;;;;;
U+1X05C; MINIM DAG NOORE DIBILA; Mn; 230; ON; ; ; ; ; ; N; ; ; ; ;
U+1X05D; MINIM DAG NOORE ZOABILA; Mn; 230; ON; ;;;; N; ;;;
U+1X05E; MINIM DAG NOORE TAKRE; Mn; 230; ON;;;;; N;;;;
U+1X05F;MINIM DAG NOORE MASTIRGA;Lo;220;ON;;;;;N;;;;
U+1X060;MINIM DAG NOORE MASGODGA UPPERCASE;Lo;220;ON;;;;;N;;;;
U+1X061;MINIM DAG NOORE MASGODGA LOWERCASE;Mn;220;ON;;;;;N;;;;
U+1X062; MINIM DAG NOORE MASTEKRE; Mn; 220; ON; ;;;; N;;;;;
```

```
U+1X063;MINIM DAG NOORE KENGRE;Mn;230;ON;;;;N;;;;

U+1X064;MINIM DAG NOORE GODGA;Mn;230;ON;;;;N;;;;

U+1X065;MINIM DAG NOORE TIRGA;Mn;230;ON;;;;N;;;;

U+1X066;MINIM DAG NOORE YIKRE;Mn;230;ON;;;;N;;;;

U+1X067;MINIM DAG NOORE KUUGA;Mn;230;ON;;;;N;;;;

U+1X068;MINIM DAG NOORE GEMGANGO;Mn;230;ON;;;;N;;;;

U+1X069;MINIM DAG NOORE PIRGU;Mn;230;ON;;;;N;;;;

U+1X06A;MINIM DAG NOORE ZILIMBILA;Mn;230;ON;;;;N;;;;

U+1X06B;MINIM DAG NOORE WOGLOGO;Lm;0;ON;;;;N;;;;

U+1X06C;MINIM DAG NOORE DAYA;Lo;0;ON;;;;N;;;;

U+1X06E;MINIM DAG NOORE KIISI;Lo;0;ON;;;;N;;;;

U+1X06F;MINIM DAG NOORE YUUMA;Lo;0;ON;;;;N;;;;

U+1X070;MINIM DAG NOORE TAPPO;Ps;0;ON;;;;N;;;;

U+1X071;MINIM DAG NOORE TABLEBNDE;Pe;0;ON;;;;N;;;;
```

Character properties for the Minim Dag Noore script.

# Line breaking information

Answering the following questions will help the Unicode experts determine the appropriate line break properties:

- Words are separated using a space; U+0020 SPACE.
- Lines breaks only occur at word boundaries.
- There is no special mode (e.g., how hyphenation is used in English) to allow line breaks within words.
- · Line breaks cannot occur within numbers.
- Line breaks cannot occur before punctuation characters.

The Minim Dag Noore script is most likely to occur with the Arabic script. See Figures 16, 26, and 28 in Section IX for examples of intralinear/interlinear Arabic-script and Minim Dag Noore-script text. It is also likely to occur with the Latin script as the Burkina Faso government officially uses the Latin script to write Mooré.

# VI Collation

The basic alphabetic order is shown below:

| abetic order is shown below: |       |               |           |                              |               |  |  |  |
|------------------------------|-------|---------------|-----------|------------------------------|---------------|--|--|--|
| Onder                        | Norse |               | etters    | LTR Letters<br>(Dextrograde) |               |  |  |  |
| Order                        | Name  |               | ograde)   |                              |               |  |  |  |
|                              |       | Lowercase     | Uppercase | Lowercase                    | Uppercase     |  |  |  |
| 1                            | Α     | ~             | Λ         | <u>~</u>                     | A             |  |  |  |
| 2                            | ВА    | ھہ            | ۵         | ۵.                           | מ             |  |  |  |
| 3                            | DJA   | ম             | 모         | عد                           | 모             |  |  |  |
| 4                            | DA    | لم            | 4         | ۵                            | 4             |  |  |  |
| 5                            | НА    | گد            | X         | &.                           | X             |  |  |  |
| 6                            | WOU   | Ą             | 2         | 9                            | <u>오</u>      |  |  |  |
| 7                            | ZA    | 의             | Ю         | ید                           | 머             |  |  |  |
| 8                            | PAHE  | Ą             | X         | &                            | Z             |  |  |  |
| 9                            | VATE  | £             | Z         | ೩                            | Z             |  |  |  |
| 10                           | ΥI    | ર્            | Ω         | 2                            | Ω             |  |  |  |
| 11                           | KA    | લ્            | T         | 2                            | T             |  |  |  |
| 12                           | LA    | ید            | Ю         | بد                           | Ю             |  |  |  |
| 13                           | MA    | يد            | Ш         | <b>ル</b>                     | П             |  |  |  |
| 14                           | NA    | IL.           | 94        | <b>9</b> L                   | Н             |  |  |  |
| 15                           | SA    | £             | E         | ٤                            | Σ             |  |  |  |
| 16                           | Al    | а<br><b>—</b> | ů<br>I    | <b>_</b>                     | a<br><b>I</b> |  |  |  |
| 17                           | FA    | للہ           | Ц         | JL.                          | U             |  |  |  |
| 18                           | NGAS  | 2             | ວ         | 2.                           | ០             |  |  |  |
| 19                           | QAX   | e.            | G         | ٤                            | C             |  |  |  |
| 20                           | RA    | ☆             | Z         | か                            | Z             |  |  |  |
| 21                           | SO    | <u>ئ</u>      | i         | <u> </u>                     | i             |  |  |  |
| 22                           | TA    | بد            | ¥         | 上                            | I             |  |  |  |

Page **32** of **82** 

| 23 | SANG                            | Ж              | Ю      | PL.            | Ю             |
|----|---------------------------------|----------------|--------|----------------|---------------|
| 24 | HON                             | ؠ۫             | °      | <u> </u>       | 0             |
| 25 | JUN                             | <b>د</b>       | Ī      | <u>_</u>       | د<br><b>ا</b> |
| 26 | DU                              | لب             | c<br>I | <u>_</u>       | c<br><b>I</b> |
| 27 | ZOA                             | <b>د</b> و     | ŭ<br>I | <b>4</b>       | ľ             |
| 30 | GA                              | ٤              | С      | ۵              | C             |
| 31 | WORD<br>INITIAL<br>VOWEL YI     | <b>بر</b> ا    | Λ      | ħ              | V             |
| 32 | WORD<br>INITIAL<br>VOWEL<br>WOU | ~ <del>2</del> | A      | <del>2</del> - | V             |
| 33 | TAKZISGO/<br>TAKBEDRE           | l              | I      | J              | I             |
| 34 | ABASGA                          | ٨              |        | •              |               |
| 35 | YIBASGA                         | ٤              |        | 3              |               |
| 36 | WUBASGA                         | ų.             |        | د              |               |

Table 24. Basic collation order of the Minim Dag Noore script.

# See Figure 48 in Section IX to see collation in community primers.

Capital letters are ordered before lowercase letters. This is true for both the RTL and LTR versions of the script. Regarding directionality for collation, RTL is ordered before LTR for the same cases as RTL is more frequently used by the community. <a href="https://doi.org/10.1001/journal.org/">Therefore, collation should be: Uppercase RTL, Uppercase LTR, Iowercase LTR</a>. <a href="https://doi.org/10.1001/journal.org/">Iowercase RTL, Iowercase LTR</a>.

There are 19 diacritics in the Minim Dag Noore script. When accounting for writing Mooré and Arabic, all letters can be used with all diacritics. Here is how collation is affected when diacritics are used:

UNMARKED LETTER < ABILA < SOBILA < HOBILA < ZIBILA < DIBILA < ZOABILA < TAKRE < MASTIRGA < MASGODGA UPPERCASE < MASGODGA LOWERCASE < MASTEKRE < KENGRE < GODGA < TIRGA < YIKRE < KUUGA < GEMGANGO < PIRGU < ZILIMBILA

Here is a table visualizing the order with the letter  ${\begin{subarray}{c} $\begin{subarray}{c} \end{subarray}}$  (A) :

| 1 <sup>st</sup>  | Unmarked<br>letter    | ~           | 11 <sup>th</sup> | Masgõdga<br>Lowercase | ځ          |
|------------------|-----------------------|-------------|------------------|-----------------------|------------|
| 2 <sup>nd</sup>  | Abila                 | <b>\$</b> e | 12 <sup>th</sup> | Mastẽkre              | *          |
| 3 <sup>rd</sup>  | Sobila                | ۲.          | 13 <sup>th</sup> | Kengre                | ۶ <b>۲</b> |
| 4 <sup>th</sup>  | Hõbila                | <b>\$</b> ° | 14 <sup>th</sup> | Gõdga                 | ζ.         |
| 5 <sup>th</sup>  | Zĩbila                | ۰ ۲         | 15 <sup>th</sup> | Tırga                 | ~          |
| 6 <sup>th</sup>  | Dibila                | ۰ ۲         | 16 <sup>th</sup> | Yıkre                 | <b>~</b>   |
| 7 <sup>th</sup>  | Zoabila               | <b>}</b> 6  | 17 <sup>th</sup> | Кυυда                 | <b>~</b>   |
| 8 <sup>th</sup>  | Takre                 | ۲           | 18 <sup>th</sup> | Gemgango              | ×          |
| 9 <sup>th</sup>  | Mastırga              | <u>ئ</u>    | 19 <sup>th</sup> | Pirgu                 | Â          |
| 10 <sup>th</sup> | Masgõdga<br>Uppercase | <b>₹</b> 1  | 20 <sup>th</sup> | Zılımbila             | *          |

Table 25. Order of diacritics on letters.

As seen in Tables 11.1-11.3, multiple diacritics can be used on a single letter. All individual diacritics are ordered first, then 2-diacritic combinations, then 3-diacritic combinations, then the next letter in the script is ordered. 2-part and 3-part diacritics are ordered according to the basic diacritic order in Table 25. Below is an exhaustive table of how every linguistically possible diacritic and diacritic combination is ordered for any particular letter:

|   | ca io       |      |        |      |          |     |                |            |    |   |   |          |   |   |          |   |   |            |   |
|---|-------------|------|--------|------|----------|-----|----------------|------------|----|---|---|----------|---|---|----------|---|---|------------|---|
| 1 | a े         | ៎    | ి      | ៌    | ័        | ुः  | তি             | <u> </u>   | ្ម | ા | ় | <b>3</b> | ្ | ៑ | <b>ब</b> | ੌ | > | <b>‹</b> ○ | ំ |
| 2 | 3a          | े हर | ाव     | ្ខខេ | िह       | >a  | ्ह <b>&gt;</b> | ಿ8∢        |    |   |   |          |   |   |          |   |   |            |   |
| 3 | ें          | ૼ    | _<br>• | ૽ૼ   | <u>ਂ</u> | ៎   | ૽              | <u>.</u>   |    |   |   |          |   |   |          |   |   |            |   |
| 4 | 3°          | ಂ    | ि      | े इं | ို       | š°  | <b>^</b> 0     | ိ          |    |   |   |          |   |   |          |   |   |            |   |
| 5 | <b>3</b> 00 | 3.0  | In:    | ្ខា  | િ        | >0  | <b>^</b> n ○   | <b>▼</b> 0 |    |   |   |          |   |   |          |   |   |            |   |
| 6 | 3U0         | } ហ  | ા      | }∪િ  | ٠<br>ا   | •u∘ | េ              | ·u·        |    |   |   |          |   |   |          |   |   |            |   |

| 7  | 390           | ु६६        | िहा           | ្ន           | ्र   | >9         | <b>6</b>     | ್ತಿ      |                 |       |       |       |               |            |        |            |       |          |        |      |         |             |
|----|---------------|------------|---------------|--------------|--|------------|--------------|----------|-----------------|-------|-------|-------|---------------|------------|--------|------------|-------|----------|--------|------|---------|-------------|
| 8  | 3।            | ाध         | ा             | <b>`</b> [   | ्र   |            | •            | •        | 1               |       |       |       |               |            |        |            |       |          |        |      |         |             |
| 9  | <u></u>       | <b>3</b> ा | ા દ           | <u> </u>     | ু<br>_                                       | <u></u>    | <u>`</u>     | <u>^</u> | <u>*</u>        |       |       |       |               |            |        |            |       |          |        |      |         |             |
| 10 | <u>ි</u>      | 3 ्।       | ្ន            | <u>-</u>     | <u>ទ</u> ្                                   | <u>ੋ</u>   | ١٠           | <u>^</u> | <u>.</u>        |       |       |       |               |            |        |            |       |          |        |      |         |             |
| 11 | ر<br>آ        | 3 ઃ        | ា ខ           | ा            | ૾ૢ   | ि।         | ۰ (          | ر، ر     | ે (             |       |       |       |               |            |        |            |       |          |        |      |         |             |
| 12 | <u>্</u>      | 3 •        | ું.           | <u>-</u>     | ្ន<br>•                                      | <u></u>    | ·            | <b>^</b> | <u></u>         |       |       |       |               |            |        |            |       |          |        |      |         |             |
| 13 | 31            | 3 a _      | 3ि            | <b>3&gt;</b> | 3<○  | <b>3</b> ∤ |              |          |                 |       |       |       |               |            |        |            |       |          |        |      |         |             |
| 14 | <u>अ</u>      | 3 ខ្       | िह            | ं            | 3<○  | <b>₃</b>   |              |          |                 |       |       |       |               |            |        |            |       |          |        |      |         |             |
| 15 | <u>න</u><br>ි |            | l             |              | ı  |            | 1            |          |                 |       |       |       |               |            |        |            |       |          |        |      |         |             |
| 16 | ূ             | *>         | ু ঃ           | <b>ે</b>     |  |            |              |          |                 |       |       |       |               |            |        |            |       |          |        |      |         |             |
| 17 | ३।ः           | ा€         | <u>।</u><br>औ | )(           | <u>(                                    </u> | 3। ।       | <b>3 श</b> ि | 3ि       | <b>3&gt;○</b> I | 3<    | 3►    | 3     | <b>3</b> ब्   | <b>ा</b>   | ।<br>ं | ]<br> <br> | 3►    | <u>।</u> | ু<br>_ | । <६ | ু (     | ~<br>_<br>_ |
| 18 | J ) !         | ] ોદ       | <b>ा</b>      | . ાં         | ्।   | 3  1       | 3 🌣 🗀        | ្វ្រ     | ا ﴿3            | ا >د  | 3►ુ ા | ्रा ः | ា ំខ          | ្វេ        | ] <£   | ا >د       | ] ે•દ | श<br>्   | ្ន     | 1 ः  | े.<br>१ | *<br>-      |
| 19 | 3ات ر         | ា ាε       | ी है          | ا ١          | √ا∵ ر  | 3۱۰ ر      | 3 <b>%</b> ℃ | 3િ ∟     | 3>∵ (           | 3<○ ι | 3►○ ၬ | ءا د  | <b>၁</b> ရိုင | ુદ         | ى ⇒د   | ر د        | 3►ુ ૮ | ्रा      | ्र     | ર <ે | ง< ≀    | <b>ૄ</b>    |
| 20 | •<br>इ.(      | •<br>ग्र   | €             | ं.           | ં.   | <u>-</u>   | •            | <u>-</u> | • •             | *়    | }∙ ः  | ः ाः  | 3 <b>व</b> ं• | <b>ূ</b> ি | • •    | <b>٠</b>   | •     |          | :<br>• | • ः  | • >×    | ঁ<br>•      |

Table 26. Order of all diacritics and diacritic combinations. Read the top to bottom, and left to right. Row 1 is ordered first (left to right), then row 2, etc.

In summary, the capital letters are ordered first, then lowercase. Remember that all of the diacritic possibilities can occur on capital letters as well as lowercase. For any letter, the unmarked letter (for example  $\sim$  (A)) is ordered first, then the same letter with all possible diacritic combinations in the above table, in the order they appear (left-to-right, top to bottom), then the next letter (i.e.,  $\sim$  (BA)).

## VII References/Citations

1. Kostelnik, J. (2023). Technological Adaptation and the Role of Social Media in the Proliferation of the Newly Created Minim Script from Burkina Faso. Ahyu: A Journal of Language and Literature, 6, 71–87. https://doi.org/10.56666/ahyu.v6i.163

#### **Additional Resources**

 "l'alphabet mooré. Moor guls bi-paala" YouTube, June 24, 2018. <a href="https://www.youtube.com/watch?v=2fWBEp3BJhg/">https://www.facebook.com/watch?v=2fWBEp3BJhg/</a> <a href="https://www.facebook.com/watch/?v=1559147544197689">https://www.facebook.com/watch/?v=1559147544197689</a>

2. "L'alphabet mooré" YouTube June 26, 2018.

https://www.youtube.com/watch?v=RsQSz6943-o

"Alphabet en moore miniim dag noore inventé au burkina fasoتحروف مينيم داغنوري لمحمد القائ7 (YouTube, March 17, 2017.

https://www.youtube.com/watch?v=Y0bPZK1gnTc

4. "مينيم بيسي miniim dag noore" YouTube, December 12, 2017. https://www.youtube.com/watch?v=-SUmTcauHFM

 "Moore miniim biissi" YouTube, January 2, 2018. https://www.youtube.com/watch?v=t7KOsK8i6N0

6. "Fondation miniim dag noore nouveau alphabet" YouTube, January 25, 2018.

https://www.youtube.com/watch?v=iKNuWxNpxpk

7. "Moor yelbuna Moor bipaala" YouTube, October 31, 2019. The title roughly translates to "Mooré proverbs [in] new Mooré [letters]" https://www.youtube.com/watch?v=QaMCnwyfdsU

8. "2 décembre 2023" YouTube, December 2, 2013.

https://www.youtube.com/watch?v=aUbPGYQA4J8

 "I'hymne national en mooré" YouTube, June 27, 2018. https://www.youtube.com/watch?v=WLzXKKpK53A

10. "I'hymne national" YouTube, July 5, 2018.

https://www.youtube.com/watch?v=XFUZogTTCqE

11. "Prononciation de nouveau alphabet du mooré" YouTube, July 10, 2018. https://www.youtube.com/watch?v=iydP22PyJvU

12. "Prononciation de nouveau alphabet du mooré" YouTube, July 10, 2018. https://www.youtube.com/watch?v=7QB9IMQVIFg

13. "Prononciation de nouveau alphabet du mooré 3" YouTube, July 10, 2018. https://www.youtube.com/watch?v=lgkUEwlJJwl

14. "Prononciation de nouveau alphabet du mooré 4" YouTube, July 10, 2018. https://www.youtube.com/watch?v=eX2F5sZah1Q

15. "Prononciation de nouveau alphabet du mooré 5" YouTube, July 10, 2018. https://www.youtube.com/watch?v=d9EHf4VjtwA

16. "Prononciation de nouveau alphabet du mooré 06" YouTube, July 10, 2018. https://www.youtube.com/watch?v=T3deNL44LrU

17. "Prononciation de nouveau alphabet du mooré 07" YouTube, July 10, 2018. https://www.youtube.com/watch?v=tPBVdQKF3CE

18. "Nouvel alphabet mooré" YouTube, August 3, 2018. https://www.youtube.com/watch?v=fjdUMeu33eM

19. "Nouvel alphabet mooré" YouTube, August 3, 2018. https://www.youtube.com/watch?v=z1\_xqb3xWuo

 "Nouvel alphabet mooré" YouTube, August 3, 2018. https://www.youtube.com/watch?v=Me4lXj WOSo

21. "Nouvel alphabet mooré" YouTube, August 3, 2018. https://www.youtube.com/watch?v=NAJSLo1NJ6Q

22. "Nouvel alphabet mooré" YouTube, August 3, 2018.

#### https://www.youtube.com/watch?v=cbWXaR55dLQ

### VIII Acknowledgements

The proposal author would like to thank Jannis Kostelnik for informing him of the Minim Dag Noore script, and for connecting him to the script user community. Special thanks are given to Karim Tapsoba and Mahamadi Ouédraogo – without whom would have made writing this document immensely more difficult.

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MINISTERE DE L'ENSEIGNEMENT SUPERIEUR DE LA RECHERCHE SCIENTIFIQUE ET DE L'INNOVATION BURKINA FASO

UNITE-PROGRES-JUSTICE

SECRETARIAT GENERAL

CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE ET TECHNOLOGIQUE Ouagadougou le 14 septembre 2016

INSTITUT DES SCIENCES DES SOCIETES (IN.S.S.)

03 BP 7047 Ouagadougou 03 Tél: (226) 50 35 55 97/95 Fax: (226) 50 35 55 96

### Attestation

Je, soussigné Bétéo D. NEBIE, chef du Département de Linguistique et des Langues Nationales (DLLN), atteste avoir présidé une réunion de chercheurs du département avec monsieur Mahamadi OUEDRAOGO, chercheur indépendant. La rencontre a eu lieu dans la salle de réunion de l'INSS ce mardi 13 septembre 2016, de 12h 06 à 14h 24, et a concerné un système d'écriture inventé par monsieur OUEDRAOGO.

Au terme de ces échanges consécutifs à deux précédents, plusieurs remarques ont été faites, sous réserve d'investigations plus approfondies :

- Le système inventé par monsieur Mahamadi Ouédraogo semble cohérent.
- Il semble être spécifique en attendant d'éventuelles vérifications supplémentaires.
- Il peut et doit être perfectionné à plusieurs niveaux ; des conseils variés ont été prodigués dans ce sens par les chercheurs.
- Il mérite un encouragement soutenu.

En foi de quoi, cette attestation a été établie pour servir et valoir ce que de droit.

Bétéo D. NEBIE



INSS attestation of the Minim Dag Noore script's suitability for the Mooré language.

### IX Examples

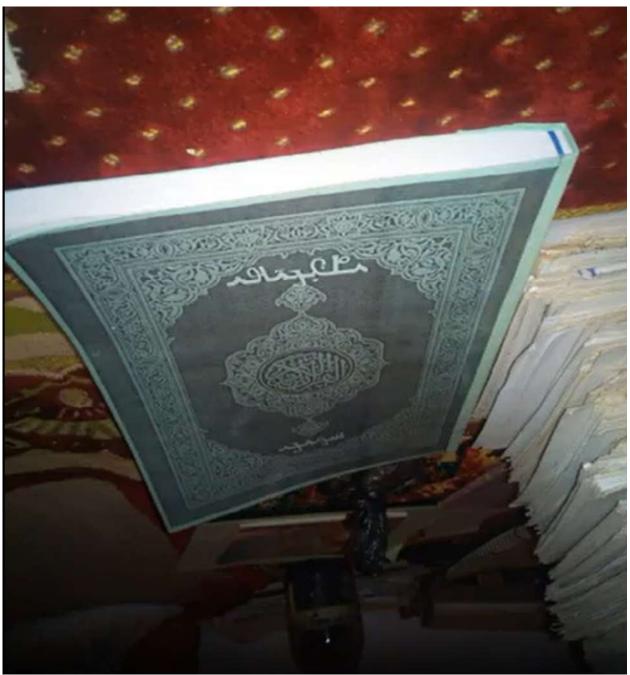


Figure 1. Qur'an, 2021, written by Mahamadi Ouédraogo. https://www.youtube.com/watch?v=lgkUEwlJJwl.

#### مطلمله

چىسىتىتىكىد بىلىتىتىد ئىلىنىڭ ئىلىنىڭ ئىلىنىڭ ئىلىنىڭ ئىلىنىڭ ھىلىنىڭ ھىلىنىڭ ھىلىنىڭ ھىلىنىڭ ھىلىنىڭ ھىلىنىڭ ئىلىنىڭ ئىلىنىڭ ئىلىنىڭ ھىلىنىڭ ھىلىنىڭ ئىلىنىڭ ئىلىنىڭ ھىلىنىڭ ھىلىنىڭ ھىلىنىڭ ھىلىنىڭ ھىلىنىڭ ھىلىنىڭ ھىلىنى ئىلىنىڭ ھىلىنىڭ ئىلىنىڭ ئىلىنىڭ ئىلىنىڭ ئىلىنىڭ ئىلىنىڭ ھىلىنىڭ ھىلىنىڭ ھىلىنىڭ ھىلىنىڭ ھىلىنىڭ ھىلىنىڭ ھىلىنى

### مِنْدِعُ

### عِنْسِ مُطَيِّعِ مُطَيِّعٌ مُطَيِّقٌ مِنْسِهِ مُطْيِّعٌ مِنْسِ

چىدلەم ئىمىسىتى ئىدىدى كى ئىدىدى ئى

### **YOUVESE**

### \*7CØ

### **而び蒸え的∨ 計所案え的∨ 蒸炉的∨ 所戻**め

Ӛ҇Ѳ҇ӚѬ҇ҿ҇Ѷ ΛΟΪΩΕ DVGIVD **ӘठСंПЭЙ МАХЭЩОЙ УММР ЖУЮДИХ ЭРМОСОТ VMŽ ቴኒኒիኒ የሚቪኒ VMŽ ዝሪክଳି ህ ዝር፤ እ** HOHEOU MX XZIVNVOS TOOC HM NOHV ΩΛΩΩΤΩ ME ZOZM ΔĮŽX ប្រហ្វែ ក្នុងប្រព័រ្ធបទិ៩ បក់ក្នុងប្បីប្រមុំ ១៤៤ ១៩៤៤ មិននិក្សាក្នុងប្រ (名) 耐皮耐肺旁边 V的 原苯某氯苯 原的 原义 原苯苯苯氯唑义义 3Miz W MZOONC ญี่เดีย ญี่เกิดเรา 出而る (F) 而びば ダVば 原図的る 裏るViC VIND VAREV OVOOR ⊻፴⊻ቫኛ ሪቪV ልሽ ልሽዲጠቂጠር (A) ዝህዝቪቃጠይ ጠጅ Vጠ장 ∑፤⊻፴V ន្តិ00V ក៏នៃទីVថា រុំក្រុក ក្រុនិសិស្ស ស្កា (9) มีช่วะมู่ง **ΒΟΡΙΊΛΟ ΥΘΗΝΈ ΛΕΙΝ ΕΝΕΙΝΑΙ ΙΙΛΟΙΙ** ጀኒኒያ ህህ ህሽ ህ정적분៣ሕ ላው ଲጅው ውህር ህ፤ህ정 

Figure 3. Surat Al-Baqarah, 2022 647-page Quran. Red arrow: Uppercase word-initial vowel YI. Note that this is in Arabic.

### مِعْسِ عُلاِّهِ عُلِيَّةً سُلِّهِ عُلِيَّةٍ عُلِيَّةً مِنْ

### المحمد مثلغ لما عمامه ما

Figure 4. 2014, 242-page book on contemplation and Istikharah (Arabic: الاستخارة), written by Zakaria Ouédraogo.

### عمقمه سميد علم بملا

### سَمُخَدِّ مَهْمَاتُ سَمُهُ مِيْرِة خُسَةِ مَ سَمِحِهِ فَسَهِ مِسَالِهُ وَ سَمِحِهِ

### عيد عسمة عالجهله

عَمَدِهُ عَيْمِهِ مِنْ مِلْ يَمْمِهُ سِلاً يَمْمِهُ مِهِمِيكِ عُمْ مُعْمِدُ عُمْ مُعْمِدُ عُمْ مُعْمِدُ عُمْ

عَيْلاء عَسمة حَالِحَكُمُ

مدَ منسم للمقد مبهفِم س للهِ عَلَى خاللہ منسم للم المنافع منافع منافع ممام

### عَيْلاء عَسمة حالاته في

للع مقامد مثلمٌ لأنام لا قُطلًا المثمد الع النسمة مجد لله عمِملناالم مَامد

عَلَيْك هِ مسته مثلاً لَهُ

ملائام عَمم لا لمهَلَام لا للهالم الاعمالي مِعَمّدُ عَلَيْهم الأَلَام مِمّالية مِّد

عيك عسمة حالاحكم

لله للهُ منسمد خسمد للنا علاسد له المعادد المتقد للنا الله وهدد الع منسد للذ

Figure 5. Book on Mooré poetry, written by Abdul Wahab.

بَعْ مِدِيدَ مِنْدِيدَ هِكَ عِدِمِهِو هِكَ عِد مِنْدِهِ هِكَ مِنْدِهِ هِكَ مِنْدِهِ هِكَ مِنْدِهِ هِكَ مِنْدِه هِكَ مِنْدِيدَ مِنْدِيدَ مِنْدِيدَ هِكَ مِنْدِيدَ هِكَ مِنْدِيدَ مِنْدِيدَ مِنْدِيدَ هِكَ عِلَيدِ هِكَ عِلَيد مِدَدِيدَ مِنْدِيدَ هِكَ مِنْدِيدَ هِكَ عِدَدِيدَ مِنْدِيدَ هِكَ عَلِيدِهِ هِكَ عَلِيدِيدَ هِكَ عَلِيدَ هِكَ عَلِيدَ مِنْدِيدَ هِكَ عَلِيدَ مِنْدِيدَ هِكَ عَلِيدَ مِنْدِيدَ هِكَ عَلِيدَ مِنْدُودِ هِكَ عَلِيدَ مِنْدُودِ هِكَ عَلِيدَ مِنْدُودِ هِكَ عَلِيدَ مَنْدُودِ هِكَ عَلِيدَ مَنْدُودِ هُكَ عَلِيدَ مَنْدُودِ هِكَ عَلِيدَ مَنْدُودِ هِكَ عَلِيدَ مَنْدُودِ هِكَ عَلَيدَ مَنْدُودِ هِكَ عَلَيدَ مَنْدُودِ هِكَ عَلَيدَ مَنْدُودِ هِكَ عَلَيدَ مِنْدُودِ هِكَ عَلَيدَ مِنْدُودِ هِنْ هُمَ عَلَيدَ مِنْدُودِ هِنْ مِنْدُودِ هِنْ مُنْ مُنْدُودِ هِنْ مُنْدُودِ هِنْ مُنْدُودِ هِنْ مُنْ مُنْدُودِ هُمُ هُودِيدَ مِنْدُودِ هُمُ هُودُ مِنْدُودِ هُمُ هُودُودِ مِنْدُودِ هُمُ مُنْ مُنْدُودِ هُمُ مُنْ مُنْدُودِ هُمُ مُنْ مُنْدُودِ هُمُ مُنْ مُنْدُودِ هُمُ مُنْ مُنْدُودُ مُنُودُ مُنْدُودُ مُنْدُودُ

### عميد علاقد

معس عليه مطحقسات مطحقمس

جَدِيم اللَّهُ اللَّه

### DEMP ZzgE

معسمطيع مطهقسلا مطههمس

### Japa Lyge

Figure 6. 2021, 61-page book Quran, written by Abdul Rahim.
Page **44** of **82** 

مِكَسِ عَلَيْكُمَ عَلَيْكُمِسِكُ عَلَيْكُمَسِ سالد غُمالد گُديالد النَّ مِمْلَّ الْحَسَّ مِهِ يہ علمبيك مُنهِلُمْس كبيالد علمبيك مِمْلًا مِهِيہ علمبيك كَهْنَ لَمُهُالِ مَهْطال مُهُمَّد الْحَم عَلَّ مِمْلًا عَلَيْكِي مُطالِقِس مِمْطال كُوْم الْحَم عَلَّ مِمْلًا عَلَيْكِي مُطالِقِس مِمْطال كُو الْحَم عَلَّ مِمْلًا

مثم، مالك گفسط لمقالك مُعَلَغ المُما المُمار يُّدُمك مُعْنا ما فِكْن

لممالك مك

| ځ   | ス   | <b>،</b> و | ځ  | ٩  | 7    | مِ          | Ж           | ę  | 2   | ᄴ              | ۸   | £  | *     |
|-----|-----|------------|----|----|------|-------------|-------------|----|-----|----------------|-----|----|-------|
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| ٥٨  | ,   | ٤ د        | ス  | 4  | 4    | •4          | <b>،</b> مر | 2  | ٧   | <del>o</del> p | 土   | ٧  | m     |
| يع  | ٤   | 5.         | 의  | ^  | 9    | ٠.          | *           | 7  | 2   | ш              | ш   | ट  | 8     |
| 35  | ٠٩٠ | ç          | 의  | ۸  | q    | ^           | 2           | ę  | *   | ،4             | Ж   | ۵  | ×     |
| U J | ٠٩٠ |            | ट  | අ  | 2    | ^           | £           | ی  | Ц   | ٥٩             | ш   | Ж  | Ж     |
| q   | ٠٩. | ス          |    | 4  | ٧    | <del></del> | 2           | £  | 4   | 4              | ۸   | 0. | ш     |
| ス   |     | ۰ <b>و</b> | ^  | 4  | LL   | 6           | 96          | 2  | Ş   | ع              | ر ا | ^  | ^     |
| 3   | ス   | ç          | ۲  | Ж  | 9    | ध           | do          | 4" | یّد | 4"             | ^   | •• | ٥٢    |
| . F | .5. | ٥٩         | 2  | Ж  | 4"   | 35,         | 4           | Ş  | ٩   | 4"             | ス   | ^  | ٩     |
| ندو | ٤   | ^          |    | ٠  | ^    | ٨           | 4"          | ż  | 2   | \$             | 2   | ٩  | 2     |

لا عَمِسه مِهْ الله لا عَمام علان على الذه مبت المهاكمة
لا عَمِسه المهاكية نوسين على المهام علان على الذه مبت المعالية لا معالية على المعارية على المبت الم

Figure 8. 2014 book on wisdom and Istikharah.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

ک خلا مہُلافۂ ۱ متک لات کمنمف کنالکئی کا کہ کا



Figure 9. 2017, book on advice/wisdom and 100 proverbs, written by Zakaria Ouédraogo. Arrow: Takre diacritic over two vowel letters, and an additional Zoabila above the letter WOU.

4

معسى مقلِقى مقلِبهسائى مقلِبهمس قس الد عُمالد گديالد الن مِمْالَّ التس مجيد علمديك مُنهلهس عديالد علمديك مِمْالَ مجيد علمديك همُالً مجيد علمديك همُالً ممُالً مُمِنال مُمُول التم علم مِمْالً علمي مُعالل مُمُال التم علم مِمْالً علمي مُعاللُهُ مِمْالًا التم علم مِمْالًا

مثمِدْ مہ سمِتیہ ممَاکہ کمعکہ کہلا علہ مِثالِمْغ مِس سَّتَالِہ علہ کَلِمِّمَّ کَلِمُک منظہ النَّمِعْلِ لِی النَّمم النَّا



Figure 10. 20-page Mooré language educational book, written by Zakaria Ouédraogo. Red arrow = Baare punctuation mark.

عِيمِ <u>مِعِيم</u>َ عَلِيم عِعِم يَّوْلُكُمُ الْخُ الْكُمُ مُّوْلُمُ كُمِّ الْخُ 12 July 12 بناكس الع مملا التس لماك ك كمد لاهس علم فكن ممهمه عياس الع عد

Figure 11. Medical book, written by Abdel Rahim Yaogo. Arrows: purple = Gõdga diacritic; pink = Kengre diacritic; green = below-letter vowel-marks.

ممملكم لمعس علم من ممولم عثماله لافحه مما گوطع مطلاسله الامهد ۳۰۰ همًا فِي النَّمَةُ لِمِن نَهِمْ مُ عَمَامُمُ عم عمد لحمد علم مكن كمَّمُكُ مُكِم على على عبد عبد الله لا لأن مىلى للبير بِمَعَلَمْ يَا مَعْمَلُمُ مِلْ المحمد لاحس علم فيلنا

Figure 12. Medical book, written by Abdel Rahim Yaogo. Alternate/special Minim digits are underlined in red. Arrow: red = long-vowel diacritic with Hõbila above YI.

Figure 13. 2008, book titled (paragraphsing): "The Secrets and Works of the Almoravids". The topic is on the Almoravid dynasty (المرابطون), written by Mahamadi Ouédraogo.

#### **ALPHABET**

### DEUX (02) DIRECTIONS

#### INVENTE PAR MAHAMADI

LE. 23/11/2006

L'Alphabet a cette particularité et le privilège d'être l'un des rares alphabets à s'écrire et se lire dans deux (02) sens :

### Hymne national bf en moore avec nouveau alphabet gauche à droite (EN MAJUSCULE)

### ស្ទុវដំឡា ការ់! កំពេកា កំរុស១ បម្លឺ! មិ ៩ដែរ

Figure 14.1. 2017, book on various topics, the page above is the National Anthem of Burkina Faso, written by Ahmed Sodgo. Red arrow: Zaoubedre with vowel diacritic on top. This is written in the uppercase LTR version of the Minim Dag Noore script.

## Hymne national bf en moore avec nouveau alphabet gauche à droite (en minuscule)

مهُرِعمُالم للملا للمَّاكد ممُلاكم مالَّمُ لام هَلِب ﴿ مَعْ لَوْمِهُوْ مَاعَمَةٌ مُمَالِمُهُ مَمْتَمُالِهُمُ ممُالممُا هُمكُ مِهِدٌ لِمُقَالِمُهُ مَ المُقَالِمُ مَا للمُالمَّمم المُ يُّم عَلَم عُملًا مِهِتًا عَمَّلُمُ المُنْكَمَا مُ لَوْمُتِن مُلامُونٌ لمُنْكُولُ مِمَّاكِم لَّهُمِّتمُ لَّامُكُمًّا مِمهامِةً مُتِممُهُا مَّ المُدَكمَّا لَمُّلمَّةً ومُالمَ مُتممني المُخْمَ للمُلاكمُ لخناهم للما عَمَاتُم وَلَكُمُ وَلَكُمُ مُحَدِّ بِمَوْمَعُ لَمُ عُمِلِ اللَّهُ عَلَّا مُعَكَّمُلًا لَمُمَّا يُلُّكُ عَلَّا لِمُكَّا مِلْكُمَّا مِلْكُمَّا لِمُلَّا لم لاڤاليم لام لاڦالام المّاليما المّالمة مما مكالمها مممؤمتما لمكالما لمرالم ما لمَلامُليهُم مهامُلا مَمناً وَمُهم ممَّمُهُ مممؤمتملا ممتولا لمثلاث م مثلاث ممالهم عمد لمُلاك لمُلكهم ما لمبمممًا تمهد لإغاثة عد للمقاتبين المهرة المحمدة الم يمام محمدم عهد الهالاغ مهالالم خمّ

Figure 14.2. The lowercase LTR version of the above book.

1

معد معلام معدهد علي المحالي المحلي ال

مىملى كېتكىللىكلى الغ مېكىلىمىد كائلى كام المىكلىمىد كائلى كام الائسىم كائلى كېمئىكى كائلى كام كانسىمىمىكىدى كائلى كائلى كام كانسىمىكىلىكىدى كائلى كام ساكلىد كائلى تېنىكلىسى مىلىلى كاملا نېملى الن كامسلىم كاملىلى لايم لاچىلى

ممّاك ليّم المالله لامس علم بمكن



Figure 15. 2017, another medical book, written by Abdel Rahim Yaogo. Arrows: red = long-vowel diacritic, green = word-final vowel grapheme.

بسم الله الرحمن الرحيم اللهم صل على سيدنا محمد وعلى آله وصحبه وسلم تسليا آمين.

معس مثلاً علىقسك معلكم سقسك معلاس قط شخطة عملام سقسك سلام عمقهم علام خلاتم

### Ladren surle

اللهم صل على سيدنا ومولانا محمد رسول الله صلى الله عليه وعلى آله وصحبه في كل لمحة ونفس بعدد كل معلوم لك يا رب العالمين

1



Figure 16. 2018, book on learning to read, written by Mahamadi Ouédraogo. Blue arrow = the A YI digraph used when writing Arabic.





Figure 17. Book on various educational topics, shown above are African nations written in the Minim Dag Noore script. Arrows: red = word-initial vowel 'YI' letter; blue = word-final vowel letters; pink = Takre stretched over two letters with Zoabila above the letter YI; green = Turga diacritic.

كرس الأود عسي ينتعد ತ್ತು ಎತ್ತು ಎಂದು ನಿರ್ಮಿಯ いんろ あっとうい あっかい しんかん しんかん उद्देश मिर्म्य करेंग्रेय करेंग्रे علمد عام على مرقسه عايد استعقدت itis to in sen show it it transituding ئىنالىمى كى مىتكىملىمى متع بعد عدمنونا عدمميمعدد askermanta In ander see too to trã lus rage Interde les où to unu Baran philippia Under int In well all and the ask at an read the sale

Figure 18. Handwritten text on religion.

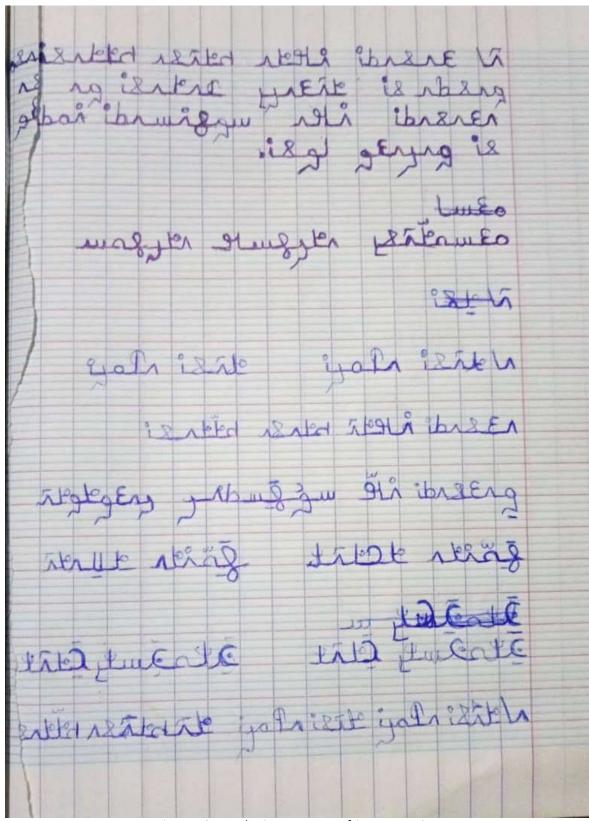


Figure 19. Handwritten text on African countries.

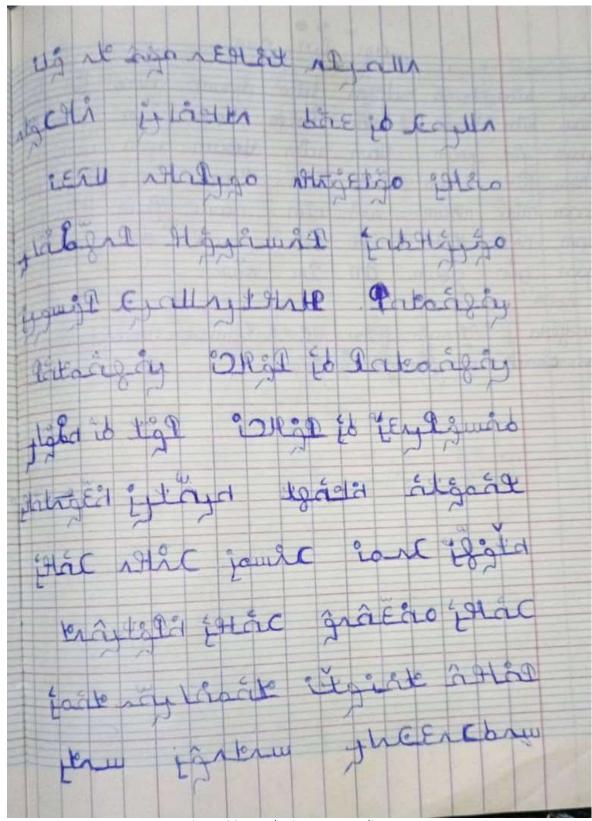


Figure 20. Handwritten text on literacy.

- ١٩ مَعْلُ مَمْلُكُمْ اللَّهُ اللَّهُ عَلَيْكُ مِنْ
- ٧٦ خط مهلالماً المثلا الأخل الثاية المته المال المالات
- ∪ منط مهداللمع العموط المنطس مهابط عمد علم الله المملع ال
  - ١١ مع موالليء عدم وثير عدم لات يملد من مم
- ♦١ مع مقالمًا مقاله مه سيمك النه عنه النا عمل مقد النا المقرّة
  - ٠٠ خط مهلالهم و مند مقله مناع علم عهم مد المسلمة
- الم خط مهلاليَّ الله مَّعلا يهم ميمين لانسمهُ عملا عملا عمالله عماله
  - ٣٠ مع مقالميَّ عقالم عدم سمَّة عقالم عناء شمَّد
- ۳٠ مع مهالميَّ به سمَّا المُم المُّه بهم مثالم مالاً لم الهُلالة عمَّا المُم المُّة المُّم المُّم المُلالة الم
  - ٣٠ مع مقالميَّ المعلى مَّاه المهم لمثال مَّاهن
- ٩٠ مَعْ مَوْالْمَرْ الْمِكْمِكُ كَامِكُ الْمُعْلِدُ مَا مُولِلُمْ اللَّهُ مُعْلَى مَا مُعْلَى اللَّهُ اللَّهُ اللَّهُ اللَّهُ عَلَى اللَّهُ اللَّالِمُ اللَّهُ اللَّاللَّالِيلُولُ اللَّالِمُ اللَّهُ اللَّهُ اللَّالِمُ اللَّالِمُ ال
  - ٧٠ منا ممالكيًّا كمِّناك إدال مد مُما إداك
  - الم خط مهدلله المحمد المحمد المحمد الله عد يدعك ت

Figure 21. 2016, book of proverbs. Alternate/special Minim Dag Noore numerals written in red. Red arrows = Takre stretched over two vowel letters and some examples of 1 or 2 diacritics above Takre.



Figure 22. The 1<sup>st</sup> Mooré proverb in a video of 10 proverbs. <a href="https://www.youtube.com/watch?v=QaMCnwyfdsU">https://www.youtube.com/watch?v=QaMCnwyfdsU</a> Red arrow = Baare punctuation mark. The man in the image is Moro Naba Kougri (born Moussa Congo). "Moro Naba" is a title for the king/ruler of Wogodogo, one of the Mossi Kingdoms located in present-day Burkina Faso. The kingdom takes its name from its historic capital, now the Burkinabe national capital of Ouagadougou.

### نشيد الوطني لبوركينا فاسو بالمورية حروف الشمالية مثلة مطامة عمالما فعماله معمالها

مَّلُولُمْ بَنُولُمْ بَاللَّهُ مَلِكُولُمْ مَا يُورُولُ مَاكَمُ الْمُلاثِمُ مَمَلُولُولُمْ الْمُكَوْلُمُ الْمُكَوْلُمُ الْمُكُولُمُ الْمُكَوْلُمُ الْمُكَامِّلُمُ الْمُكَامِّلُمُ الْمُكَامِّلُمُ الْمُكَامِلُمُ اللَّهُ الْمُكَامِّلُمُ اللَّهُ الْمُكَامِمُ اللَّهُ الْمُلْعُومُ اللَّهُ اللَّهُ الْمُسْتِمِطِلُمُ اللَّهُ الْمُسْتِمِطِلُمُ اللَّهُ الْمُسْتِمِطِلُمُ اللَّهُ اللَّهُ الْمُسْتِمِطِلُمُ الْمُسْتِمِطِلُمُ اللَّهُ الْمُسْتِمِعِطُلُمُ اللَّهُ الْمُسْتِعِمِلِكُ اللَّهُ الْمُسْتِعِطِلُمُ اللَّهُ الْمُسْتِمِعِطُولُولُولِمُ اللَّهُ اللَّهُ الْمُسْتِعِمِلِكُ اللَّهُ الْمُسْتِعِمِلِكُ اللَّهُ الْمُسْتِعِمِلِي اللَّهُ الْمُسْتِعِالِي اللَّهُ اللَّهُ اللَّهُ اللَّهُ اللَّهُ الْمُسْتِعِمِلِي اللَّهُ اللْمُسْتِعِمِيْ اللَّهُ اللَّهُ اللَّهُ اللَّهُ اللَّهُ اللَّهُ اللْمُلْعُمُ اللَّهُ اللَّهُ اللْمُلِمُ اللَّهُ اللَّهُ اللْمُلِمُ اللْمُلْعُلُمُ اللْمُ اللَّهُ اللْمُلِمُ اللْمُلْعُلُمُ اللْمُلِمُ اللَّهُ اللْمُلِمُ اللْمُلْعُلُمُ اللَّهُ اللْمُلِمُ الل

Figure 23.1. A screenshot from a video singing the Burkina Faso national anthem in Mooré with lyrics written in the lowercase left-to-right version of the Minim Dag Noore script. https://www.youtube.com/watch?v=WLzXKKpK53A

### ומשות אפשונות חסווכח ומצצו השתוחבלבם

UNIONEIVU YN 150712 YDCID LUNGIN YDMUTHOUTH ZAR DZŪ IZĪŽZDĪL. Č TDĪZCAĪ UAIKOA ĪĪ RICA ZAR NEM TEACHTI. ZVIAU UITETI Q IETTOVI ZUINUIN ZUICY ZZIUMU! MUIOCUII UYZNZM UIMOYZII' Q ZUIZCYII TUTH YOUNGEINI TUCHTUI YOUR ILEYONIU YOUNG MUUUL SULL TELEST CYZY ZYZYZI NY ZUIT MI ZUY ADORE AN INCOMET AN INCOMER CHINK AN INUNCOME EXCZUIL DIUNY ZVIICZUII EUINGY BUINGZIUYY ZUINZUI να τισγευστέδο σεξίση ευρίση εργγεί να MUZE VYULZOMUNE VOMZE EVIETU V IEVIETU IPVENZU POICE HAD SALESO A SEALESO SEASON AN SOLVENTE ZVI TUMCZUII ZZIZ ZVEVZUII" TUO ZUEUI GVOZY IZUM HZCZI UZEDY HYCYMY IZ:9 HUYYUZOMUUE SIDE AUTHOZUTY! GU! YZJAU! ZYJI NYJ ZZICUJI " GYZ THEE YOU GAT HAD SYLLES DIUM ECHAR FOR HUZDHUI INCHIN CHINI ME AR AND

Figure 23.2. A screenshot from a video singing the Burkina Faso national anthem in Mooré with lyrics written in the uppercase LTR version of the Minim Dag Noore script. <a href="https://www.youtube.com/watch?v=WLzXKKpK53A">https://www.youtube.com/watch?v=WLzXKKpK53A</a> Arrows: red = long-vowel letter; blue = LTR word-final vowel letter YI.

### Burkina Faso fäag-m-meng yuulle (Ditanye)

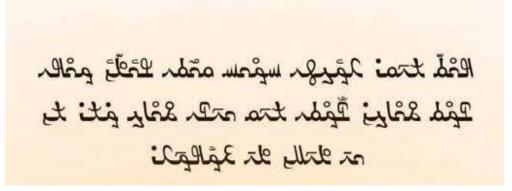
Burkîmba pînd n kisga wôrbo la yande hal youm tusri, B kisga făadba sên yi yuga hal youm koabga n wa ne yembdo,

B tödga silem-weegā sēn toeeme n lebg yaoolem yembdo, B kisga silem-weegā yembdo ne a tēng-n-teendbā fāa gilli. Wusg n bas raoodo la kēer me sid zāgsame, La pān-kongrā la töogrā la tuulgā kaagre, Zilmā raagre kenga d nin-buildā pelse La b paasa b raoodo n leb n zēk b burkīndi.

### Reesgo

La yung a ye taa, a ye taa kumba nin-buiida vum kibare.
La yung a ye taa bal puge waa... tilgre! sor pakame,
Ti b rik n babsd vi-noogo, yung a ye lagma tond nin-buiida
Ne nin-buiida sen be duni wa faa puge
N baood tilgre la paoongo, ne b suura faa
Kall ti d t-oge, ba d na ki d teng yinga!.

Figure 24. A screenshot of from a video singing the Burkina Faso national anthem in Mooré with lyrics written in the Latin script. This is, presumably, a follow-up accompanying video to the video showcased in Figures 23.1-23.2 that used the Minim Dag Noore script. <a href="https://www.youtube.com/watch?v=XFUZogTTCqE">https://www.youtube.com/watch?v=XFUZogTTCqE</a>



عيد ) Figure 25. Example of a short digital text consisting of greetings and blessing to celebrate Eid al-Fitr ( عيد ) 'Îd al-Fiţr') in May 2023. Arrows: red = long-vowel diacritic; green = Tırga diacritic; blue = Kengre diacritic

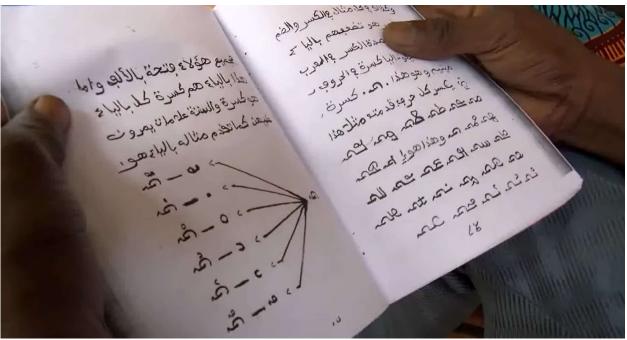


Figure 26. Minim Dag Noore script primer written in Arabic and Mooré. <a href="https://www.youtube.com/watch?v=2fWBEp3BJhg">https://www.youtube.com/watch?v=2fWBEp3BJhg</a>



Figure 27. Educational material on the Minim Dag Noore script. The paper on the right displays Minim Dag Noore script letters. <a href="https://www.youtube.com/watch?v=RsQSz6943-o">https://www.youtube.com/watch?v=RsQSz6943-o</a> Arrows: red = LTR lowercase letters; green = LTR uppercase letters; blue = diacritics; yellow = numerals; orange = mathematical notation; purple = date symbols.

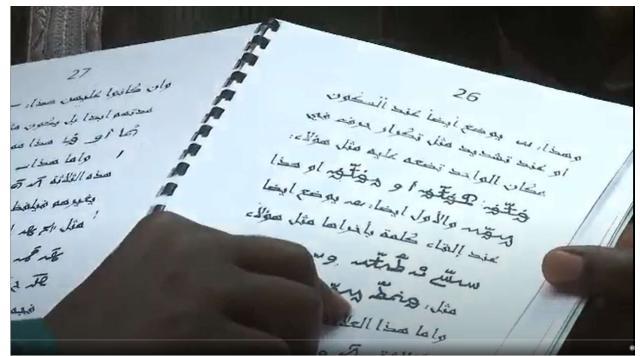


Figure 28. Interlinear Mooré and Arabic text in the Minim Dag Noore and Arabic scripts. https://www.youtube.com/watch?v=RsQSz6943-o

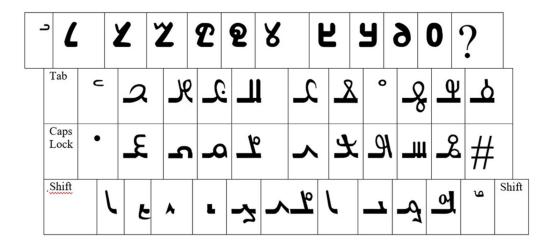


Figure 29. The Minim Dag Noore keyboard layout; compare with an Arabic keyboard below (Figure 91). (Figures 90-92 are from "Technological Adaptation and the Role of Social Media in the Proliferation of the Newly Created Minim Script from Burkina Faso" by: Jannis Kostelnik)

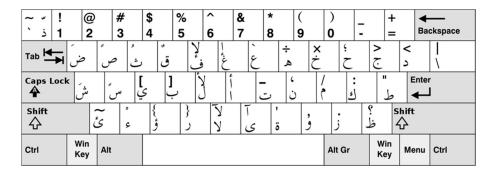


Figure 30. Arabic keyboard that the community are using with Minim Dag Noore script fonts.

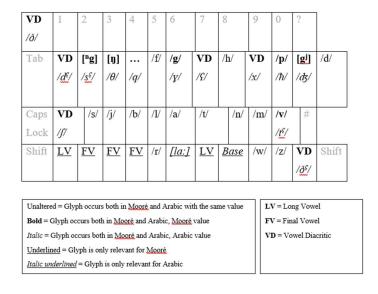


Figure 31. Script/linguistics analysis comparing Mooré with Arabic.

### TROIS (03) SYMBOLES DATEURS

Trois symboles permettent, en association avec les chiffres, de déterminer le jour, le mois et l'année dans tous les calendriers possibles :

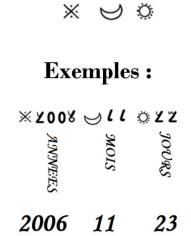


Figure 32. Minim Dag Noore script date symbols.

# DEUX SORTES DE SIGNES NUMERIQUES SIGNES NUMERIQUES CLASSIQUES

| SIGNES<br>TRANSAFRICAIN<br>S | 6 | 9 | F | 8 | 5 | e | Z | Z | L | 0 |
|------------------------------|---|---|---|---|---|---|---|---|---|---|
| SIGNES<br>CLASSIQUES         | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |

Figure 33. Minim Dag Noore script numerals (top) and Hindu-Arabic equivalents (bottom).

ك مُسْمَىنَ ك مُّامِدُ لا كُنَّامِدُ ٩ الْدَتُ 9 الْفِرَ لا مَهْامِمَ لا الْمُلْمَ لا الْمُلْمَ لا الْمُلْمَ 10 الْفِرَ لا مُهامِمَ لا الْمُلْمَ 
Figure 34. Minim Dag Noore script numerals and Mooré-language names written out besides them.

Le nouveau alphabet possède ses propres chiffres prêts à toutes formes de mathématiques. Douze chiffres initiaux constituent la base de cette mathématique :

| LES DOUZE CHIFFRES INITIAUX     |           |      |           |            |        |          |          |         |       |      |     |    |
|---------------------------------|-----------|------|-----------|------------|--------|----------|----------|---------|-------|------|-----|----|
| CHIFFRES<br>NOUVEAU<br>ALPHABET | •         | ۶    | ☆         | П          | Ц      | 3        | С        | ٦       | Γ     | -    | 0   | I  |
| CORRESPONDANCE<br>S FRANCAISES  | plus de 5 | zero | cinqliard | quatrliard | triard | billiard | milliard | million | mille | cent | dix | un |

Le calcul avec ces chiffres se fait avec les signes

# La présentation détaillée des chiffres initiaux

Figure 35. Minim Dag Noore script mathematical notation symbols.

Page **70** of **82** 

### المِمَالُّلْمِكُم 🌣

1 000 000 000 000 000 000



1 000 000 000 000 000 000 000

Figure 36. Minim Dag Noore script mathematical notation symbols.

Page **71** of **82** 

### CINQ (03) MOIS REVOLUS D'ASSIMULATION

Le temps requis pour l'assimilation complète des lettres et des chiffres y compris l'écriture, la lecture et le calcul est estimé à trois mois maximum pour un sujet motivé et attentionné. Un sujet distrait les aura assimilés en cinq mois révolus

Une méthode simple et rapide de cet alphabet et ses chiffres a déjà imposé son efficacité à travers quelques expériences effectuées.

Figure 37. Minim Dag Noore script mathematical notation symbols written in combinations to create different values.

Figure 38. Mooré Abjad numerals.

|                    | <b>ሂዕሂ</b> ዊ                                     | <b>X0</b> X6 |
|--------------------|--|--------------|
| de droite à gauche | L'année en cours est 2024. L'année prochaine sei | a 2025.      |
|                    |  |              |
| de gauche à droite | العام الحالي هو 2024. والعام القادم سيكون 2025   |              |
|                    | <u> </u>   |              |

Figure 39. An example of how Minim Dag Noore script digits are written/read LTR (top) and RTL (bottom) using French and Arabic as examples.

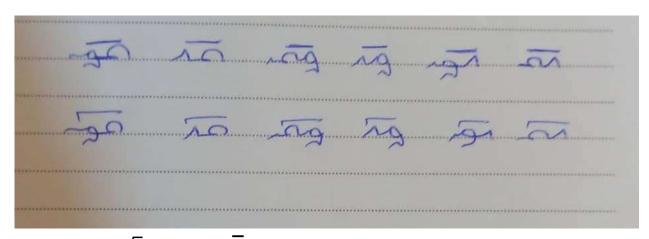


Figure 40. How Takre  $^{\bigcirc}$  , and the Turga  $^{\bigcirc}$  diacritic can stretch over 2 base-vowels at the same time.

### 

Figure 41.1. An excerpt from a page written in uppercase RTL Minim Dag Noore script.

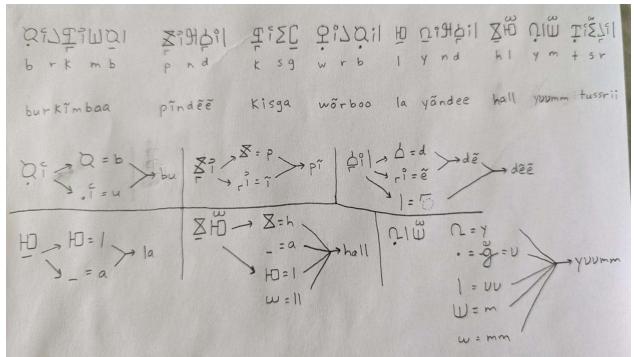


Figure 41.2. The proposal author's attempt to transliterate Figure 137's excerpt into the Latin Mooré orthography described in Table 4.

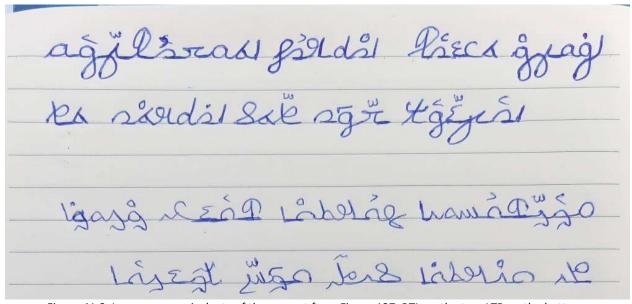


Figure 41.3. Lowercase equivalents of the excerpt from Figure 137. RTL on the top; LTR on the bottom.



Figure 42. Classroom of students learning the Minim Dag Noore script. https://www.youtube.com/watch?v=2fWBEp3BJhg



Figures 43 (left) – 129 (right). A classroom of 13-14 students learning the Minim Dag Noore script. https://www.youtube.com/watch?v=NAJSLo1NJ6Q





Figure 44. Classroom learning the Minim Dag Noore script.

Page **76** of **82** 

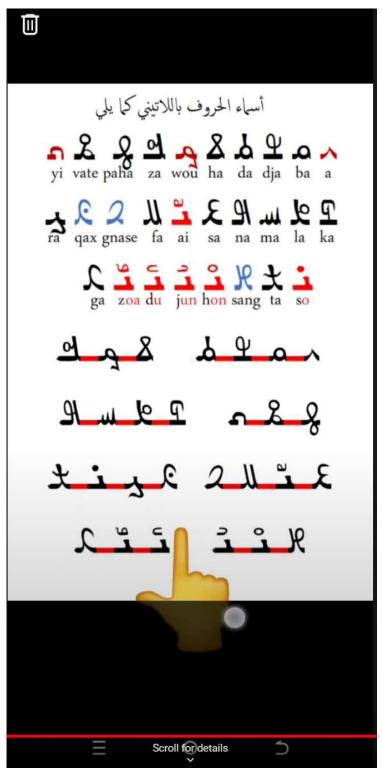


Figure 45. A screenshot from a mobile phone screen-recording of a teacher using an emoji as a pointer to virtually teach the Minim Dag Noore script. This is an exercise that is then sent in one of the very large WhatsApp group chats for people to engage in exercises. <a href="https://www.youtube.com/watch?v=aUbPGYQA4J8">https://www.youtube.com/watch?v=aUbPGYQA4J8</a>

A) (HA &) (DA &) (DJA &) (BA a) (A A) 와) (YI a) (VATE &) (PAHE &) (ZA 出) (WA 山) (AI 音) (SA &) (NA அ) (MA 山) (LA 中) (KA 土) (chau 土) (ra ച) (quaxi &) (ngache a) (FA (zoi 二) (du 毛) (june 土) (hon ²) (sang 水) (ta (ga &)

Figure 46. A screenshot from a video teaching the Minim Dag Noore script letters. https://www.youtube.com/watch?v=fjdUMeu33eM



Figure 47. Screenshot of video pointing out the Kengre (left) and Godga (right) diacritics

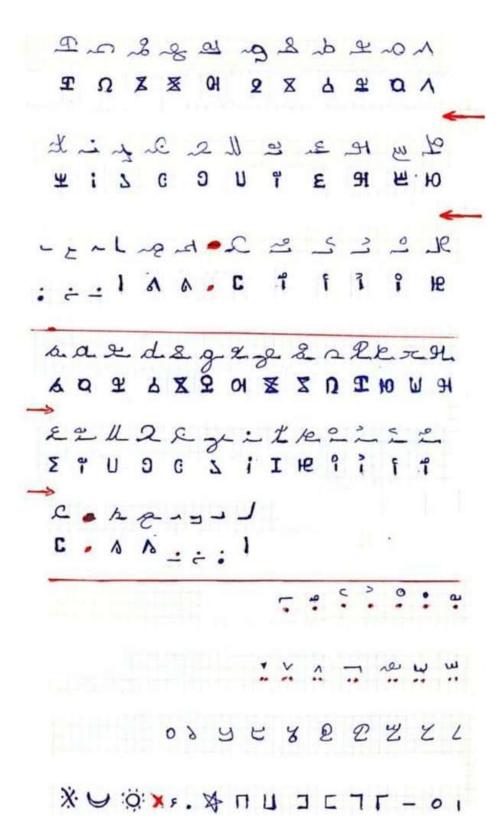


Figure 48. Collation of RTL (top) and LTR (middle) lowercase and uppercase letters in the Minim Dag Noore script.



Figure 49. RTB interview about the Minim Dag Noore script with Dr. Inoussa Guiré, director of the Department of Linguistics and National Languages at *Institut des Sciences des Sociétés* (INSS) (Institute of Social Sciences), an institution within the framework of the National Centre for Scientific and Technical Research (CNRST). <a href="https://www.youtube.com/watch?v=2fWBEp3BJhg">https://www.youtube.com/watch?v=2fWBEp3BJhg</a>



Figure 50.1. "Burkina Faso" written in the Minim Dag Noore script. https://www.youtube.com/watch?v=2fWBEp3BJhg



Figure 50.2. "Ouagadougou" written in the Minim Dag Noore script. https://www.youtube.com/watch?v=2fWBEp3BJhg

### X ISO Proposal Summary Forms

#### 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 <a href="http://std.dkuug.dk/JTC1/SC2/WG2/docs/principles.html">http://std.dkuug.dk/JTC1/SC2/WG2/docs/principles.html</a> for guidelines and details before filling this form.

Please ensure you are using the latest Form from \_http://std.dkuug.dk/JTC1/SC2/WG2/docs/summaryform.html\_. See also \_http://std.dkuug.dk/JTC1/SC2/WG2/docs/roadmaps.html\_ for latest *Roadmaps*.

#### A. Administrative

| 1. Title: Proposal to encode the Minim L   | Dag Noore script in the UCS                         |  |  |  |  |  |  |  |
|--|---|--|--|--|--|--|--|--|
| 2. Requester's name: Oreen Yousuf  |   |  |  |  |  |  |  |  |
| B. Requester type (Member body/Liaison/Individual contribution): Individual contribution         |   |  |  |  |  |  |  |  |
| 4. Submission date: 2025 March 28  |   |  |  |  |  |  |  |  |
| 5. Requester's reference (if applicable):  |   |  |  |  |  |  |  |  |
| 6. Choose one of the following:  |   |  |  |  |  |  |  |  |
| This is a complete proposal:   |   |  |  |  |  |  |  |  |
| (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:   |   |  |  |  |  |  |  |  |
| b. The proposal is for addition of character(s) to an existing block:                            |   |  |  |  |  |  |  |  |
| Name of the existing block:  |   |  |  |  |  |  |  |  |
| 2. Number of characters in proposal:   | 167   |  |  |  |  |  |  |  |
| 3. Proposed category (select one from below - see section 2.2 of P&P docum                       | nent):  |  |  |  |  |  |  |  |
| A-Contemporary X B.1-Specialized (small collection)  | B.2-Specialized (large collection)                  |  |  |  |  |  |  |  |
| C-Major extinct D-Attested extinct E-Minor extinct   |   |  |  |  |  |  |  |  |
| F-Archaic Hieroglyphic or Ideographic G-Obscure or questionable usage symbols                    |   |  |  |  |  |  |  |  |
| 4. Is a repertoire including character names provided?  Yes                                      |   |  |  |  |  |  |  |  |
| a. If YES, are the names in accordance with the "character naming gui                            |   |  |  |  |  |  |  |  |
| in Annex L of P&P document?  | ves Yes   |  |  |  |  |  |  |  |
|  |   |  |  |  |  |  |  |  |
| b. Are the character shapes attached in a legible form suitable for revi                         | lew!  |  |  |  |  |  |  |  |
| 5. Fonts related:  | 5 lb  |  |  |  |  |  |  |  |
| a. Who will provide the appropriate computerized font to the Project                             | Editor of 10646 for publishing the standard?        |  |  |  |  |  |  |  |
| Oreen Yousuf   |   |  |  |  |  |  |  |  |
| b. Identify the party granting a license for use of the font by the edito                        |   |  |  |  |  |  |  |  |
| Mahamadi Ouédraogo via Oreen Yousuf (or  | een.yousuJ@gmaii.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,                               |   |  |  |  |  |  |  |  |
| of proposed characters attached?   | Yes   |  |  |  |  |  |  |  |
| 7. Special encoding issues:  |   |  |  |  |  |  |  |  |
| Does the proposal address other aspects of character data processing                             |   |  |  |  |  |  |  |  |
| presentation, sorting, searching, indexing, transliteration etc. (if yes p                       |   |  |  |  |  |  |  |  |
| A very detailed sorting description is enclo   | osed in this document.                              |  |  |  |  |  |  |  |
| 8. Additional Information:   |   |  |  |  |  |  |  |  |
| Submitters are invited to provide any additional information about Propertic                     | es of the proposed Character(s) or Script that will |  |  |  |  |  |  |  |
| assist in correct understanding of and correct linguistic processing of the pro                  | oposed character(s) or script. Examples of such     |  |  |  |  |  |  |  |
| properties are: Casing information, Numeric information, Currency informat                       | tion, Display behaviour information such as line    |  |  |  |  |  |  |  |

breaks, widths etc., Combining behaviour, Spacing behaviour, Directional behaviour, Default Collation behaviour, relevance in

<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)

Mark Up contexts, Compatibility equivalence and other Unicode normalization related information. See the Unicode standard at <a href="http://www.unicode.org">http://www.unicode.org</a>, for such information on other scripts. Also see Unicode Character Database (<a href="http://www.unicode.org/reports/tr44/">http://www.unicode.org/reports/tr44/</a>) 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? Script user community; script creator   |                      |  |  |  |  |  |  |
| If YES, available relevant documents: Enclosed in this document.   |                      |  |  |  |  |  |  |
| 3. Information on the user community for the proposed characters (for example:                           |                      |  |  |  |  |  |  |
| size, demographics, information technology use, or publishing use) is included?                          | Yes                  |  |  |  |  |  |  |
| Reference: Enclosed in this document.  |                      |  |  |  |  |  |  |
| 4. The context of use for the proposed characters (type of use; common or rare)                          | Rare                 |  |  |  |  |  |  |
| Reference: Enclosed in this document.  |                      |  |  |  |  |  |  |
| 5. Are the proposed characters in current use by the user community?                                     | Yes                  |  |  |  |  |  |  |
| If YES, where? Reference: Burkina Faso and neighboring countries; some script users                      | s in Arab countries. |  |  |  |  |  |  |
| 6. After giving due considerations to the principles in the P&P document must the proposed characters be | e 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:   |                      |  |  |  |  |  |  |
|  |                      |  |  |  |  |  |  |