For the purpose of segment labeling we are using the Case Insensitive Speech Assessment Method Phonetic Alphabet (CISAMPA). Since the IPA symbols are difficult to use for our applications, symbols in the Speech Assessment Method Phonetic Alphabet (SAMPA) are matched to the IPA symbols and used for labeling.

The following table shows Urdu letters, their corresponding IPA symbols and the CISAMPA.

Sr.#	Urdu Letter	IPA	CISAMPA
1	پ	P	P
2	پھ	pʰ	P_H
3	ب	B	B
4	بھ	bʰ	B_H
5	م	M	M
6	مھ	mʰ	M_H
7	ت،ط	t̪	T_D
8	تھ	t̪ʰ	T_D_H
9	د	d̪	D_D
10	دھ	d̪ʰ	D_D_H
11	ٹ	T	T
12	ٹھ	tʰ	T_H
13	ڈ	D	D
14	ڈھ	dʰ	D_H
15	ن	N	N
16	نھ	nʰ	N_H
17	ک	K	K
18	کھ	kʰ	K_H
19	گ	g	G
20	گھ	gʰ	G_H
21	نک, نگ in ن نگھ,نکھ	ŋ	N_G
22	ق	Q	Q
23	ع	ʔ	Y
24	ف	F	F

25	و	V	V
26	س،ص،ث	S	S
27	ذ،ز ،ظ،ض	Z	Z
28	ش	ʃ	S_H
29	ژ	ʒ	Z_Z
30	خ	X	X
31	غ	ɣ	G_G
32	ہ،ح	H	H
33	ل	L	L
34	لھ	lʰ	L_H
35	ر	R	R
36	رھ	rʰ	R_H
37	ڑ	ɽ	R_R
38	ڑھ	ɽʰ	R_R_H
39	ی	J	J
40	یھ	jʰ	J_H
41	چ	ʧ	T_S
42	چھ	ʧʰ	T_S_H
43	ج	ʤ	D_Z
44	جھ	ʤh	D_Z_H
45	وُ	u:	U_U
46	وُں	ũ:	U_U_N
47	و	o:	O_O
48	وں	õ:	O_O_N
49	وَ	ɔ:	O
50	وَں	ɔ̃:	O_N
51	ا،آ	ɑ:	A_A
52	اں،آں	ɑ̃:	A_A_N
53	ی	i:	I_I
54	یں	ĩ:	I_I_N
55	ے	e:	A_Y
56	یں	ẽ:	A_Y_N
57	ہ ٔ	e	A_Y_H

58		æ	A_E_H
59	ٱہ	O	O_O_H
60	ـَے	æ:	A_E
61	یَ	æ̃:	A_E_N
62	ِ	ɪ	I
63	ُ	ʊ	U
64	ءَ،	ə	A
65	ِ ں	ĩ	I_N
66	ُ ں	ũ	U_N
67	َ ں	ə̃	A_N

Table 1: CISAMPA for Urdu

The grey highlighted sounds are used rarely.

List of Diphthongs

Sr.#	Urdu Letter	IPA	CISAMPA
1	ی ء ،َ	əi:	A_I_I
2	ـے ء ،َ	əe:	A_A_Y
3	آـے	ɑ:e:	A_A_A_Y
4	آی	ɑ:i:	A_A_I_I
5	ی ُوں	i: ũ:	I_I_U_U_N
6	ـَا	æa:	A_E_H_A_A
7	وُی	u:i:	U_U_I_I

Table 2: CISAMPA for Diphthongs