

Appendix A

Text Data for building the HTS

Text Data, corresponding to the first hundred speech files used for training the HMM-based TTS system, are given below. The first column shows the name of the wav file and the second shows the text, in IT3 format, corresponding to the wav file.

(TR_AIR_1 “ ek raxjaar dujoni raani aasil.”)

(TR_AIR_2 “ teuluke duyuu gaxrbhax boti hol edin duyuu raanir xaxntaan jaxnmax paale daangaxr jaxn raanie.”)

(TR_AIR_3 “ daangaxr joni raanie etaa laxraa aaru xoru raanie etaa outengaa paale.”)

(TR_AIR_4 “ xoru raanie teur outengaa he etaa jaxnmax puua dexi baxr bejaar paai taak suua paataxt doliyaai pelaai dile.”)

(TR_AIR_5 “ kintu dexaa gol dineu raanie kaam koribaxr aaru xubaxr xaxmaxyaxt xei outengaatu baagori aahi raanir usaxr paaihi.”)

(TR_AIR_6 “ raanie taak doliaai pelaaleu xi aakou baagori aahi raanir kaax paaihi.”)

(TR_AIR_7 “ edin outengaa tu duporiaa maanuh dunuh nuhuaa xaxmaxyaxt.”)

(TR_AIR_8 “ baagori goi noir ghaat paai taate axlaxp roi aasil xei xaxmaxyaxt raxjaar kuaxr ejaxne xei ghaataxr axlaxp.”)

(TR_AIR_9 “ aauhotiaa thaaite bohi boroxi baai aasil kuwaxre dexile je outengatur bhitaaxr paxraa ejoni dhuniaa sulaa suwaali ulaal.”)

(TR_AIR_10 “ aaru noit gaa dhui uthi kuwaxre dexile je outengaa tur bhitaaxr paxraa ejoni dhuniaa suaali ulaal.”)

(TR_AIR_11 “ aaru noit gaa dhui uthi suli kusaa rodot xukaai loi aakou outengatur bhitaaxr xumaai baagori maakaxr ghaxraxloi ubhoti aahil.”)

- (TR_AIR_12 “ raxjaar laxraai koinyaa jonir rup dexi muh goi baataxte boroxi pelaai thoi ghaxraxloi gusi aahi ruh ghaxraxt xumaal.”)
- (TR_AIR_13 “ iphaale kuaxraxk baapek maake nedexi bisaari saxlaath laxgaai xexaxt ruh ghaxraxt xui thaxkaa paale.”)
- (TR_AIR_14 “ ki hoise buli teuluke kuaxraxk xudhilaxt kuaxre kaxle je omukaa raxjaar ghaxraxt etaa baagori phuraa etaa outengaa aase.”)
- (TR_AIR_15 “ xei outengaa tur xoite muk biao dibax laage.”)
- (TR_AIR_16 “ raxjaa raanie praxthaxmaxte xeitu haahi uthaa axxaxmbhaxb kaxthaa buli kuaxraxk bujaabolo dhorile.”)
- (TR_AIR_17 “ kintu kuaxre nuxunile.”)
- (TR_AIR_18 “ kuaxraxr xaxt baandh eraabax nuaari baapeke raxjaalo xei baatori di outengaare xoite nijaxr kuaxraxr biao praxstaab kori pothiaale.”)
- (TR_AIR_19 “ outengaar maak raanie xei kaxthaa xuni kaandi kaati kaxle je muk kio eidaxre laaj dibax laagise.”)
- (TR_AIR_20 “ kintu xexaxt teu eraabo nuaari xeikaxthaat maanti hoi outengaa tu dhuaai paxxaxlaai kuaxraxr xoite taar biao dile.”)
- (TR_AIR_21 “ baxr dhum dhaam kori kuaxre biao kaxraai dulaat tuli aani nijaxr ghaxr puaalehi.”)
- (TR_AIR_22 “ raxjaar kuaxre outengaar xoite eketaa xuoni ghaxraxte thaakil.”)
- (TR_AIR_23 “ raati kuaxre khaabolo maake ji bhaat pothiaai die taare ebhaag kuaxre khaai aaru ebhaag thoi di xui thaake.”)
- (TR_AIR_24 “ kintu kuaxraxr tuponi aahilei outengaatur bhitaxraxr paxraa koinyaa joni ulaai aahi xei bhaat gaal khaai aakou outengaar bhitaxraxt xumaai thaake.”)
- (TR_AIR_25 “ dinou kuaxre tuponir paxraa uthi xei thoi diaa bhaat nedexi aasorit maane.”)
- (TR_AIR_26 “ kuaxre iyaar kaaraxn bujibo nuaari xaxdaai dux kori aamaxn jimaxn kori bohi thaake.”)
- (TR_AIR_27 “ edin ejoni mogoniaa buri kuaxraxr usorolo saul maagibaxloi aahisil.”)
- (TR_AIR_28 “ burhie kuaxraxk aamaxn jimaxn koi bohi thaxkaa dexi xudhile.”)
- (TR_AIR_29 “ bupaa tumi dexun maxn maari bohi aasaa tumi biyaa kaxraalaa kintu kotaa aami dexun buaarik dekhaa puaa naai.”)
- (TR_AIR_30 “ burhir kaxthaa xuni kuaxre aagaxr paxraa guriloike taalik xaxkaxlu kaxthaa bhaangi kaxlaxt.”)
- (TR_AIR_31 “ burhie maat laxgaale bupaa o outengaatur bhitaxraxte tumaar kuori aase.”)
- (TR_AIR_32 “ xuoni ghaxraxr bhitaxraxt ekuraa tuh jui dhori thaxbaa aaru doi

gaaxir.”)

(TR_AIR_33 “ aathiaa kaxl phenehi mihaxlaai usaxraxte etaa baatit thoi dibaa tumi tumaar xuaa paatit tuponi axhaar bhaau juri.”)

(TR_AIR_34 “ naak ghur ghuraai thaakibaa tumaar tuponi aahise bhaabi jetiaa xei outengaatur poraa suaali joni.”)

(TR_AIR_35 “ ulaai bhaat khaabolo bohibo tetiaa tumi taxtaalike uthi xei outengaa tu tuh juit di puri pelaabaa.”)

(TR_AIR_36 “ kintu tetiaa dexibaa je suaali joni thaas kaxre maatit pori goise tetiaai laxraa lorikoi xei baatir paxraa doi gaaxir aaru aathiaa kaxl aani.”)

(TR_AIR_37 “ taair muraxt bhaxraxn dibaa dilei taai gyaan paai uthi bohibo.”)

(TR_AIR_38 “ burir buddhi xuni kuaxre raxng paai taaik baxtaa di bidaai dile aaru raati xei burhir kaxthaa maxte.”)

(TR_AIR_39 “ ou kuaxrik laabh korile kuaxraxr baapek maake pis dinaa.”)

(TR_AIR_40 “ puua xei ghaxtaxnaa xuni aaru buaariekaxk dexi teulukaxr maxnaxt aanaxndaxi naxdhaxraa hol.”)

(TR_AIR_41 “ bioi bioni raxjaa raanilo ei baatori teuluke koi pothiaalaxt teulukaxr maxnaxt maxhaa raxng milil aaru aakou.”)

(TR_AIR_42 “ teuluke maxhaa paxyubhaxraxre jiek ou kuorik kuaxroloi biaa dile.”)

(TR_AIR_43 “ baandaxr aaru xiaal etaa xiaal aaru etaa baandaxr aasil xihaxte duyuu xuxi hoi hepaah poluuaa khaai phuribolo buddhi korile.”)

(TR_AIR_44 “ edin xihaxte kot ki khaabax pao buli bhaabi.”)

(TR_AIR_45 “ haabir maajaxr raaj aali etaa kaaxaxt lukaai aasil enete xei baatedi maanuhe bbaar gaaxir gur.”)

(TR_AIR_46 “ kaxl kuhiaar bhaar baandhi loi juua dexile taake dexi xiaale baandaxraxk kaxle xoxi.”)

(TR_AIR_47 “ ei maanuh keitaak loi juua bostubur khaabax laagibax eteke etaa buddhi uliuaa jaauk.”)

(TR_AIR_48 “ tumi axlaxp durote baataxr kaaxaxr jupaa etaar bhitaxraxt lukaai thaakaa maxi eixinir jupaa etaate lukaai thaaku.”)

(TR_AIR_49 “ xihaxte jetiaa aamaar usaxr paabaxhi maxi maatim huuaa aaru tumi maatibaa khuaa.”)

(TR_AIR_50 “ dexibaa xihaxte haxthaat aamaar huuaa khuaa xunile bhaxi khaai bostu pelaai laxr maaribax.”)

(TR_AIR_51 “ baandaxr aaru xiaale ei buddhi aalusi lukaai thaaki maanuh keitaa aahi usaxr paalot.”)

(TR_AIR_52 “ huuaa aaru khuaa khuaa korilaxt baagh ki bhaaluk aahise maanuh

keitaa bhaxi khaai bhaar khur taate pelaai eri thoi bhiraai laxr maarile.”)

(TR_AIR_53 “ maanuhkeitaai piaapi di laxr maxraa dexi xiaal aaru baandaxre raxngaxt deu dupaal.”)

(TR_AIR_54 “ paari bhaaraxr bostu bur loi goi haabit xumuaale baandaxre xiaalaxk kole.”)

(TR_AIR_55 “ xoxi aami bostubur iaate khaaboloj bohile jodi xei maanuh keitaar.”)

(TR_AIR_56 “ xihaxtaxr bostu bisaari ubhoti aahe tente aamaak iaate paale maari aaddhaa kori.”)

(TR_AIR_57 “ bostu bur kaarhi loi gusi jaabax eteke etaa kaam kaxraa jaauk ei bostubur loi.”)

(TR_AIR_58 “ ei uxax gaxs jupaar upaxraxe uthu aaru tumi taxlaxt thaakaa tumitu aaru gaxsaxt uthibax naajaanaa.”)

(TR_AIR_59 “ upaxraxt mur bhaag bostu maxi khaam aaru tumaar bhaagaxr bostu bur maxi etaa etaakoi taxlaxt pelaai di thaakim.”)

(TR_AIR_60 “ eteke tumi muk bostu bur daangi diaa maxi uporoloi tuli nim.”)

(TR_AIR_61 “ eikaxthaat xiaal maanti hoi bostu bur daangi baandaxraxk diboloi dhorile aaru baandaxre tuli ni gaxsaxr upaxraxt thoboloi dhorile.”)

(TR_AIR_62 “ xokolu xini bostu thaan thit laxgaai thoi axtaat baandaxre gaxsaxr daalaxt bohi maxhaa xuxe nissintax maxnere hepaah poluaai khaaboloj laagil.”)

(TR_AIR_63 “ xiaale gaxsaxr taxlaxt paxraa maat laxgaale xoxi mur bhaag kot baandaxre kaxl khaai baakoli tu tololoi pelaai di kaxle.”)

(TR_AIR_64 “ xoxi saabaa xeiti kaxl goise dhoribaa.”)

(TR_AIR_65 “ gaaxir khaai sungaa aaru tekeli taxlaxloi pelaai di kaxle xoxi tumaar bhaagaxr gaaxir goise dhoribaa.”)

(TR_AIR_66 “ heidaxre baandaxre xiaalaxk phaaki di xaxkaxlu bur bostu khuaa dexi xiaale xaxngaxt gaxsaxr gurike kaamuri aaru maati aasuri.”)

(TR_AIR_67 “ nijaxr dux maxnaxte loi taar paxraa gusi gol.”)

(TR_AIR_68 “ eidaxre baandaxre xiaalaxk phaaki di xaxkaxlu bur bostu khuaa dexi xiaale xaxngaxt gaxsaxr gurike.”)

(TR_AIR_69 “ kaamuri aaru maati aasuri pisuri maxnaxr dux maxnaxte loi taar paxraa gusi gol.”)

(TR_AIR_70 “ edin baandaxre xiaalaxk etaa baxraxlaxr baahaxr usaxraxt bohi thaxkaa dexi.”)

(TR_AIR_71 “ usaxr saapi xudhile xoxi ki korisaa xiaale uttaxr dile ei xoxi ki nu kaxm.”)

(TR_AIR_72 “ xiaale uttaxr dile e xoxi kinu kaxm deuhe raxjaai muk daxbaa roxiaa paatise xei dexi raxjaar ei daxbaa tu roxi bohi aasu.”)

- (TR_AIR_73 “ baandaxre kaxle xoxi esaapaxr baau diaahe xiaale uttaxr dile nu-aaru dibo xoxi raxjaai xunile muk kaati dusuaa koribax.”)
- (TR_AIR_74 “ tumi xunaa naai ne nax baxjaautei gu guaai aase baandaxre kaxle.”)
- (TR_AIR_75 “ naxhaxi xoxi laahe koi esaapaxr baau raxjaai nuxune mur baxr maxn goise.”)
- (TR_AIR_76 “ baaru xoxi tumaar kaxthaa nu pelaau keneke laahe laahe saapaxr di ek buaa.”)
- (TR_AIR_77 “ eibuli baandaxraxk koi xiaale xiaal xaautkaxre aataxr hol baandaxre horixaxt.”)
- (TR_AIR_78 “ kodur baahaxt saapaxr maarilaxt gutei bur tekeliiaa kodue taar haate bhorie gaaie muxe uburi xaai.”)
- (TR_AIR_79 “ pori kaamuriboloi dhorile aaru baandaxraxr mukh ukhohi dum jen hol baandaxre taxt naapaai.”)
- (TR_AIR_80 “ xoxi xoxi aahaa maxi morilu xiaale duror poraa uttaxr dile.”)
- (TR_AIR_81 “ kaxl tu xaai je muk muloi baakoli tu pelaai disilaa taar upokaar korilu.”)
- (TR_AIR_82 “ baandaxre maatile xoxi muk raaxaa maxi morilu xiaale uttaxr dile gaaxir xaai je xudhaa tekeli tu muloi pelaai disilaa taar hur tulilu.”)
- (TR_AIR_83 “ baandaxre maatile xoxi aahaaoi maxi morilu xiaale kuhiaar khaai je muk.”)
- (TR_AIR_84 “ kuhiaar khaai je muloi subaa pelaai disilaa taar putaxk tulilu.”)
- (TR_AIR_85 “ ei buli koi baandaxraxk taatei eri aatori gusi gol iaar bohu din pisaxt baandaxre edin dexile.”)
- (TR_AIR_86 “ xiaale edaxraa bej kosu rokhi bohi aase baandaxre tetiaa xei.”)
- (TR_AIR_87 “ xei kodur kaxthaa ekebaarei paahori goisil.”)
- (TR_AIR_88 “ xi usaxr saapi aahi xiaalaxk xudhile xoxi ki korisaa xeidaxraa ki.”)
- (TR_AIR_89 “ xiaale haahimuxere baandaxraxr phaale saai maat laxgaale eidxraa raxjaar puraa kuhiaar.”)
- (TR_AIR_90 “ muk raxjaa ghaxraxr paxraa roxiaa paatise dexi rokhi aasu kinu korim raxjaar hukum.”)
- (TR_AIR_91 “ kuhiaaraxr naam xunie baandaxraxr mukhaxr paani ulaal baandaxre kaxle xoxi muk xoru saai edaali khaaboloji dibaane.”)
- (TR_AIR_92 “ xiaale uttaxr dile aau tuminu ki kuaa he raxjaar kuhiaar maxi tummaak kenekoi khaaboloji diu.”)
- (TR_AIR_93 “ raxjaai xunile muk tu maaribaxi petaxr puaaliku siri maaribax lubhiala baandaxre aakou kaxle.”)
- (TR_AIR_94 “ naxhaxi xoxi mur baxr maxn goise edaali maxne maxne khaaboloji

diaa raxjaai gaxm naapaai.”)

(TR_AIR_95 “ xiaale kaxle khaabax khujisaa khuaa teheloi mur ji haxi haxbax kintu edaalir besi naxhaxi.”)

(TR_AIR_96 “ xilaxr onumuti puua maatraxkei khokuaa baandaxre daangaxr kosu edaal aani laxraa lori koi subaaboloi dhorile.”)

(TR_AIR_97 “ laxge laxge bej kosue taarmukh khojuaai taxt eruaai dile.”)

(TR_AIR_98 “ aaru xi siori gaxsaxr paat xaxraai xiaalaxk maatiboloi dhorile xoxi muk raaxaa maxi morilu.”)

(TR_AIR_99 “ xiaale uttaxr dile kaxl khaai je baakoli tu muloi pelaai disilaa taar upaxkaar korilu.”)

(TR_AIR_100 “ baandaxre maatile xoxi morilu xiaale uttaxr dile kuhiaar khaai muloi subaa pelaai diaa hur tulilu.”)

Appendix B

Label files for building the HTS

The initial label files generated during HTS building, corresponding to two wav files are displayed below. The first and second column represents the start and end times, in ten-millionth of a second, of a segment, and the third column represents the phoneme label where ‘SIL’ stands for silence. The fourth column is ignored.

(i) Label file for TR_AIR_1 .wav (ek raxjaar dujoni raani aasil)

```
0 4500000 SIL -3259.297119
4500000 6000000 e -1201.078735
6000000 6600000 k -544.134033
6600000 6900000 SIL -311.680847
6900000 7200000 r -237.116852
7200000 7800000 ax -485.769440
7800000 8700000 j -703.765198
8700000 9800000 aa -833.684937
9800000 10100000 r -242.650040
10100000 13300000 SIL -2278.067383
13300000 14300000 d -797.317871
14300000 15200000 u -673.617615
15200000 16100000 j -739.488525
16100000 16400000 o -258.663971
16400000 17100000 n -556.037598
17100000 18500000 i -1160.523926
18500000 18800000 SIL -256.487000
```

18800000 19100000 r -272.651611
19100000 20200000 aa -798.122192
20200000 21400000 n -955.550537
21400000 21900000 i -407.557617
21900000 22200000 SIL -257.743439
22200000 22500000 aa -246.252274
22500000 24100000 s -1293.514404
24100000 24400000 i -254.632523
24400000 24700000 l -294.342346
24700000 26100000 SIL -986.496582

(i) Label file for TR_AIR_2 .wav (teuluke duyuy gaxrbhax boti hol edin duyuy raanir xaxntaan jaxnmax paale daangaxr jaxn raanie)

0 900000 SIL -523.241333
900000 1300000 t -334.424683
1300000 2000000 e -603.379456
2000000 3100000 u -865.260437
3100000 3400000 l -243.436676
3400000 4400000 u -761.524841
4400000 4900000 k -451.922363
4900000 5900000 e -756.130127
5900000 6200000 SIL -247.987289
6200000 6500000 d -247.853653
6500000 6800000 u -274.847504
6800000 7700000 y -596.000427
7700000 9100000 u -1169.483887
9100000 12200000 SIL -2391.848389
12200000 13200000 g -842.397522
13200000 13900000 ax -536.028625
13900000 14300000 r -330.465881
14300000 15100000 bh -631.668213
15100000 15500000 ax -310.712433
15500000 15800000 SIL -257.365417
15800000 16100000 b -248.170166
16100000 16400000 o -262.135620
16400000 17100000 t -621.335571

17100000 18000000 i -826.825623
18000000 18300000 SIL -310.120300
18300000 18700000 h -328.541534
18700000 19500000 o -700.647217
19500000 19800000 l -231.304657
19800000 21600000 SIL -1345.138672
21600000 22600000 e -785.960266
22600000 23100000 d -422.740570
23100000 23900000 i -632.367371
23900000 25100000 n -792.797729
25100000 25400000 SIL -266.752136
25400000 25700000 d -264.201782
25700000 26000000 u -265.770905
26000000 27000000 y -557.038574
27000000 27300000 u -234.966660
27300000 27600000 SIL -255.427597
27600000 27900000 r -238.384811
27900000 28600000 aa -474.036804
28600000 29300000 n -537.813354
29300000 30300000 i -800.869751
30300000 30900000 r -627.318054
30900000 31800000 SIL -724.284668
31800000 32900000 x -886.619873
32900000 33400000 ax -429.911133
33400000 34600000 n -878.302795
34600000 35000000 t -351.937439
35000000 35900000 aa -680.372009
35900000 36400000 n -365.949280
36400000 36700000 SIL -269.616852
36700000 37600000 j -715.792358
37600000 37900000 ax -259.047607
37900000 38300000 n -275.369720
38300000 39100000 m -629.307861
39100000 39500000 ax -315.011139
39500000 39800000 SIL -245.642441
39800000 40300000 p -402.552307
40300000 40700000 aa -341.156433

40700000 41600000 l -741.954468
41600000 42200000 e -479.455566
42200000 45700000 SIL -2533.217773
45700000 46200000 d -454.337646
46200000 47200000 aa -781.851807
47200000 47800000 ng -423.794647
47800000 48600000 ax -626.266968
48600000 48900000 r -281.512115
48900000 49200000 SIL -396.031128
49200000 50100000 j -700.617920
50100000 50500000 ax -322.592834
50500000 51600000 n -749.094849
51600000 51900000 SIL -290.897095
51900000 52200000 r -237.316330
52200000 52900000 aa -499.208374
52900000 54300000 n -1059.857666
54300000 55200000 i -658.156616
55200000 55900000 e -577.979980
55900000 57900000 SIL -1466.828491

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