period of the UL frames is designated, and thus may designate a transmission time period longer than the desired transmission time period. For this reason, there is a probability that all of communication apparatuses which transmit UL frames will transmit paddings.

[0009]

Therefore, embodiments of the present invention propose a new and improved communication apparatus and communication method that can reconcile efficient use of wireless communication resources with stabilization of reception performance in wireless multiplex communication.

Solution to Problem

[0010]

According to a first aspect, there is provided a communication apparatus including: a communication unit configured to receive frames including first information from a plurality of other communication apparatuses and transmit first frames including information indicating a first transmission time period to the plurality of other communication apparatuses; a control unit configured to determine the first transmission time period on the basis of the plurality of pieces of first information; and a processing unit configured to generate the first frames.

[0010a]

According to a second aspect of the present invention, there is provided a communication apparatus including: a communication unit configured to transmit a frame including first information to a first communication apparatus, and receive a first frame including information indicating a first transmission time period determined by the first communication apparatus on the basis of a plurality of pieces of the first information; and a processing unit configured to generate a frame on the basis of the information indicating the first transmission time period.

[0011]

According to a third aspect, there is provided a communication method including: receiving frames including first information from a plurality of other communication apparatuses, and transmitting first frames including information indicating a first transmission time period to the plurality of other communication apparatuses; determining the first transmission time period on the basis of the plurality of pieces of first information; and generating the first frames.

Advantageous Effects of Invention

[0012]

As described above, according to embodiments of the present invention, a communication apparatus and a communication method that can reconcile efficient use of wireless