What is claimed is:

1. An image decoding method performed by a decoding apparatus, the method comprising:

deriving transform coefficients for a current block based on residual information received from a bitstream;

deriving modified transform coefficients by applying an LFNST to the transform coefficients; and

deriving residual samples for the currenttarget block based on an inverse primary transform for the modified transform coefficients,

wherein the deriving of the transform coefficients comprises:

determining whether a scaling list is applied to the current block based on whether the LFNST is applied and a tree type of the current block; and

deriving the transform coefficients for the current block from the residual information based on a determination result, and

wherein based onwhen the tree type of the current block isbeing a single tree and the current block isbeing a chroma component, the scaling list is applied.

2. The image decoding method of claim 1, wherein the LFNST is not applied to the chroma component of the current block.

3. The image decoding method of claim 1, wherein when the tree type of the current block is the single tree and the LFNST is performed on the current block, the scaling list is not applied to a luma component of the current block.

4. The image decoding method of claim 1, further comprising:

receiving flag information indicating whether the scaling list is available when the LFNST is performed.

5. The image decoding method of claim 4, wherein when the flag information indicates that the scaling list is not available and the LFNST index is greater than 0, the scaling list is not applied to the luma component.

6. The image decoding method of claim 4, wherein when the flag information indicates that the scaling list is not available and the LFNST index is greater than 0, if the tree type of the current block is a dual-tree chroma, the scaling list is not applied to the chroma component.

7. The image decoding method of claim 4, wherein when the flag information indicates that the scaling list is not available and the LFNST index is greater than 0, if the tree type of the current block is a dual-tree luma, the scaling list is not applied to the luma component.

8. An image encoding method performed by an image encoding apparatus, the method comprising:

deriving transform coefficients for a current block from residual samples for the current block based on a transform process;

determining whether a scaling list is applied to the current block based on whether an LFNST is performed in the transform process and a tree type of the current block; and

quantizing the transform coefficients based on a determination,

wherein ~~when~~ based on the tree type of the current block ~~is~~being a single tree and the current block ~~is~~being a chroma component, the scaling list is applied.

9. The image encoding method of claim 8, wherein the LFNST is not performed on the chroma component of the current block.

10. The image encoding method of claim 8, wherein when the tree type of the current block is the single tree and the LFNST is performed on the current block, the scaling list is not applied to a luma component of the current block.

11. The image encoding method of claim 8, wherein when the tree type of the current block is a dual-tree chroma and the LFNST is performed on the current block, the scaling list is not applied to the chroma component.

12. The image encoding method of claim 8, wherein when the tree type of the current block is a dual-tree luma and the LFNST is performed on the current block, the scaling list is not applied to the luma component.

13. The image encoding method of claim 8, further comprising:

encoding and outputting flag information indicating whether the scaling list is available when the LFNST is performed.

14. The image encoding method of claim 8, wherein the current block comprises a transform block.

15. A computer-readable digital storage medium that stores a bitstream generated by a method~~instruction information to cause an image decoding method to be performed~~, the ~~image decoding~~ method comprising:

deriving transform coefficients for a current block from residual samples for the current block based on a transform process;

determining whether a scaling list is applied to the current block based on whether an LFNST is performed in the transform process and a tree type of the current block;

quantizing the transform coefficients based on a determination; and

encoding residual information related to the quantized transform coefficients to generate the bitsteam,

wherein based on the tree type of the current block being a single tree and the current block being a chroma component, the scaling list is applied.

~~deriving transform coefficients for a current block based on residual information received from a bitstream;~~

~~deriving modified transform coefficients by applying an LFNST to the transform coefficients; and~~

~~deriving residual samples for the target block based on an inverse primary transform for the modified transform coefficients,~~

~~wherein the deriving of the transform coefficients comprises:~~

~~determining whether a scaling list is applied to the current block based on whether the LFNST is applied and a tree type of the current block; and~~

~~deriving the transform coefficients for the current block from the residual information based on a determination result, and~~

~~wherein when the tree type of the current block is a single tree and the current block is a chroma component, the scaling list is applied.~~

16. A method for transmitting data for image information comprising:

obtaining a bitstream for the image, wherein the bitstream is generated based on deriving transform coefficients for a current block from residual samples for the current block based on a transform process; determining whether a scaling list is applied to the current block based on whether an LFNST is performed in the transform process and a tree type of the current block; quantizing the transform coefficients based on a determination; and encoding residual information related to the quantized transform coefficients to generate the bitsteam; and

transmitting the data comprising the bitstream,

wherein based on the tree type of the current block being a single tree and the current block being a chroma component, the scaling list is applied.