WHAT IS CLAIMED IS:

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

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

deriving residual samples for the current block based on an inverse transform for the transform coefficients,

wherein deriving the transform coefficients comprises:

determining whether a scaling list is applied to the current block based on a tree type of the current block and whether a low frequency non-separable transform (LFNST) is applied; and

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

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

wherein based on the tree type of the current block being a dual-tree chroma and the LFNST being applied to the chroma component of the current block, the scaling list is not applied to the chroma component of the current block.

2. The image decoding method of claim 1, wherein based on the tree type of the current block being the single tree and the color component of the current block being the chroma component, the LFNST is not applied to the chroma component of the current block.

3. The image decoding method of claim 1, wherein based on the tree type of the current block being the single tree and the LFNST being applied to 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 for a block to which the LFNST is applied.

5. The image decoding method of claim 4, wherein based on the flag information indicating that the scaling list is not available, an LFNST index being greater than 0, and the tree type of the current block being the single tree, the scaling list is not applied to a luma component of the current block.

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

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

8. An image encoding method performed by an image encoding apparatus, 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 a tree type of the current block and whether a low frequency non-separable transform (LFNST) is performed in the transform process; and

quantizing the transform coefficients based on the determination,

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

wherein based on the tree type of the current block being a dual-tree chroma and the LFNST being performed on the current block, the scaling list is not applied to the chroma component of the current block.

9. The image encoding method of claim 8, wherein based on the tree type of the current block being the single tree and the color component of the current block being the chroma component, the LFNST is not performed on the chroma component of the current block.

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

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

encoding and outputting flag information indicating whether the scaling list is available for a

block to which the LFNST is applied.

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

14. A computer-readable digital storage medium that stores a bitstream generated by a method, 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 a tree type of the current block and whether a low frequency non-separable (LFNST) is performed in the transform process;

quantizing the transform coefficients based on the 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 a color component of the current block being a chroma component, the scaling list is applied to the chroma component of the current block, and

wherein based on the tree type of the current block being a dual-tree chroma and the LFNST being performed on the current block, the scaling list is not applied to the chroma component of the current block.

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

generating a bitstream for the image information, 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 a low frequency non-separable transform (LFNST) is performed in the transform process and a tree type of the current block; quantizing the transform coefficients based on the determination, and encoding residual information related to the quantized transform coefficients; and

transmitting the data comprising the bitstream,

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

wherein based on the tree type of the current block being a dual-tree chroma and the LFNST being performed on the current block, the scaling list is not applied to the chroma component of the current block.