

**DECISION No. 61/2005/QĐ-BNN OF OCTOBER 12, 2005, PROMULGATING THE REGULATION ON PROTECTIVE FOREST CLASSIFICATION CRITERIA**

**THE MINISTER OF AGRICULTURE AND RURAL DEVELOPMENT**

*Pursuant to the Government's Decree No. 86/2003/ND-CP of July 18, 2003, defining the functions, tasks, powers and organizational structure of the Agriculture and Rural Development Ministry;*

*Pursuant to the 2004 Law on Forest Protection and Development;*

*At the proposal of the director of the Forestry Department,*

**DECIDES:**

**Article 1.-** To promulgate together with this Decision the Regulation on protective forest classification criteria.

**Article 2.-** This Decision takes effect 15 days after its publication in "CONG BAO."

**Article 3.-** The director of the Office, the director of the Forestry Department, the director of the Science and Technology Department, the director of the Legal Department, the director of the Forest Ranger Department, directors of provincial/municipal Agriculture and Rural Development Services, directors of provincial/municipal Forest Ranger Sub-Departments, and heads of concerned units shall have to implement this Decision.

**For the Minister  
of Agriculture and Rural Development  
Vice Minister  
HUA DUC NHI**

**REGULATION ON PROTECTIVE FOREST CLASSIFICATION CRITERIA**

*(Promulgated together with Decision No. 61/2005/QĐ-BNN of October 12, 2005, of the Agriculture and Rural Development Minister)*

**I. GENERAL PROVISIONS**

This document provides for the protective forest classification criteria to be applicable nationwide to all types of forestry land, including land under forests (natural forests and planted forests); land that historically has not contained forests, land that no longer contains forests and vegetational coverage planned for forestry purposes.

Protective forests are forests determined largely for the purposes of protecting and enhancing the water source-regulating capability, protecting soil against erosion and desertification, thus contributing to mitigating natural disasters, conditioning climate, ensuring the ecological balance and environmental security.

According to Article 4 of the 2004 Forest Protection and Development Law, protective forests include:

1. Headwater protective forests;
2. Protective forests for shielding wind and blown sand;
3. Protective forests for breaking waves and encroaching upon the sea;
4. Protective forests for environmental protection.

**II. CRITERIA FOR CLASSIFYING PROTECTIVE FORESTS**

1. Headwater protective forests

Headwater protective forests aim to enhance the capability of regulating water sources for flows and reservoirs with a view to mitigating flood, reducing erosion, protecting soil and limiting the soil deposit in river and lake beds.

1.1. Criteria for classifying headwater protective forests:

a/ Criterion 1: Rainfall

Rain is regarded as a factor which exerts great impacts on soil erosion, drought and flow. However, impacts of rain factor are relatively complicated and depend on characteristics of rain, of which rainfall and rain concentration are of the greatest influence.

On the basis of annual rainfall and rain concentration, rain impacts on soil erosion and flow are graded into the following three degrees:

Table 1: Criterion for grading impacts of rainfall:

Degree	Sign	Criterion
Degree 1	M1	- Rainfall > 2,000 mm per year, or - Rainfall of 1,500 – 2,000 mm per year, concentrated in 2 or 3 months
Degree 2	M2	- Rainfall of 1,500 - 2,000 mm per year, or - Rainfall of 1,000 - 1,500 mm per year, concentrated in 2 or 3 months
Degree 3	M3	- Rainfall < 1,500 mm per year, or - Rainfall < 1,000 mm per year, concentrated in 2 or 3 months

b/ Criterion 2: Slope

Slope is an important natural factor exerting direct impacts on soil erosion and flow. The higher slope, the greater soil erosion and flow would be and vice versa.

On the basis of three slope levels in the following three types of terrain:

- Zone A: Terrain of hills, mountains and dissection of a depth > 50m

- Zone B: Terrain of hills, mountains and dissection of a depth of between 25 - 50 m.

- Zone C: Terrain of hills, mountains and dissection of a depth < 25m,

Degrees of slope impact on soil erosion, flow and water-regulating capability shall be graded as follows:

Table 2. Criterion for grading slope impact degrees

Zone / slope / degree	Sign	Criterion of slope levels in different types of terrain		
		A	B	C
Degree 1	$\alpha_1$	> 35°	> 25°	> 15°
Degree 2	$\alpha_2$	26° - 35°	15° - 25°	8° - 15°
Degree 3	$\alpha_3$	< 26°	< 15°	< 8°

c/ Criterion 3: Altitude

In erosion research, another terrain factor, i.e., the length of slope side, must be taken into account. The length of slope side greatly impacts soil erosion and surface flow, the longer a slope side is, the greater the volume and speed of the flow and the eroded soil amount would be. The length of slope side shall be the distance from the point where a surface flow starts to the point where the mud and sand deposit occurs. However, the determination of slope side length is suitable with the research into single erosion within a narrow area only. Therefore, the current replacement of this factor with altitude would make the determination of protection degree easier. Depending on the altitudinal difference between the highest level and the lowest level within the scope of a headwater protective forest project (i.e., the height of the highest mountain, from its peak to the main river tributary or river or stream bed in the project area), altitude shall be divided into following three levels with different criticalities.

Table 3. Criterion for grading altitude impact degrees

Degree	Sign	Criterion of altitude
Degree 1	C <sub>1</sub>	1/3 of altitudinal difference upward (to the peak)
Degree 2	C <sub>2</sub>	1/3 of altitudinal difference in the midsection (slope side)
Degree 3	C <sub>3</sub>	1/3 of altitude difference downward (to the foot)

Note: For each project, depending on the practical situation, topographical map shall be based on to determine the altitude difference, thereby calculating specific quantitative criterion (to be filled in column 3) of the degrees in Table 3 above.

d) Criterion 4: Soil (mechanical composition and thickness of soil layer)

The mechanical composition shall be determined by contents of grains of different sizes in soil. Water permeability of soil depends largely on its mechanical composition and therefore impacts the volume of the surface flow. Depending on the mechanical composition with the thickness of soil layer being taken into account, the flow's impact on soil shall be divided into following three degrees:

Table 4. Criterion for grading degrees of impact on soil

Degree	Sign	Criteria of subject soil
Degree 1	D <sub>1</sub>	- Sandy soil, soiled sand, medium or thin soil layer (of a thickness of ≤ 80 cm), or - Light or medium argillaceous soil, of a soil layer thickness of under 30 cm
Degree 2	D <sub>2</sub>	- Sandy soil or clay sand, of a soil layer thickness > 80 cm, or - Light or medium argillaceous soil, of a soil layer thickness of between 30 cm and 80 cm
Degree 3	D <sub>3</sub>	- Heavy argillaceous soil or clay, of a soil layer thickness > 30 cm, or - Light or medium argillaceous soil, of a soil layer thickness of over 80 cm

e/ Criterion 5: Land acreage

The land acreage for reviewing, evaluating and determining criticality of factors involved in the protection degree grading is plot (equivalent to 100 hectares). Value of numerical values shall apply to a plot when 70% or more of its acreage bears the calculated value.

1.2. Determination of headwater protection degrees for various types of forestry land

On the basis of the aforesaid criteria, forestry land shall be divided into three headwater protection degrees: Highly critical, critical and less critical. These headwater protection degrees are provided for in the index of critical degrees of protective forests, promulgated together with this Regulation (not printed herein).

Apart from determining areas of protective forests on the basis of the aforesaid criteria, in the construction process it is necessary to:

- + Prioritize the protection of hydroelectric power projects, irrigation reservoirs and dams.

- + Raise the critical degree of riparian land areas along rivers, main river tributaries or streams or land areas around reservoirs or dams to immediately higher degree (i.e., less critical areas shall become critical areas and critical areas shall become highly critical areas).

- + Raise the critical degree of land areas adjacent to key projects, cities, provincial towns, district townships, mountainous roads, etc., to the immediately higher degree.

**2. Protective forests for shielding wind and blown sand**

Protective forests for shielding wind and blown sand aim to prevent harmful wind, shield blown sand, protect agriculture, population quarters, urban centers, production areas and other projects.

2.1. Criteria for classifying protective forests for shielding wind and blown sand

a/ Criterion 1: Coastal sand terrace

Coastal sand terrace includes the following forms: sand hillocks, sand dunes, sand banks and sand shoals (including types of drift sand, quicksand, running sand), etc. Depending on different features, coastal sand terrace can be divided into four basic forms as follows:

- Sand dunes cover various types of dune, sand bars and even wandering sand strips. Sand dunes may appear in round-top hummocks, or high and uneven dunes lying inconsecutively or dunes lying consecutively in strips to the same direction in sand areas. Sand dunes are characterized by the terrain of wandering sand.

- Sand hillocks mean forms of stationary or semi-stationary sandy coast, in low, high, uneven and round-top shapes, lying consecutively or singly to the same direction or to different directions.

- Sand banks include wide plains stretching from the seashore to high, low, wide or narrow shoals intermingling with sand dunes and sand hillocks, or spreading or stretching to areas of drift sand or quicksand. Sand banks may therefore be totally drained, seasonally drained or submerged. In general, sand banks are lower than sand dunes and sand hillocks with a gentle terrain and non-wandering sand. In each coast, sand banks often occupy the largest area.

- Sand shoals include sinks or any terrain lying in front of wandering sand areas. These terrains always change under rains or storms or after sand storms, etc.

b/ Criterion 2: Practical socio-economic conditions of harmed subjects

In this criterion, before touching upon specific socio-economic characteristics of harmed subjects,

such subjects may be divided into population quarters, infrastructure projects and agro-industrial economic establishments. Major criteria for grading the criticality shall be management levels or importance as well as concentration of harmed subjects. Another criterion which cannot be ignored is the danger of being buried.

c/ Criterion 3: Size of sand areas

Size of sand areas shall be divided into two levels: > 100 hectares and < 100 hectares.

2.2. Determination of areas of protective forests for shielding wind and blown sand

On the basis of the aforesaid criteria, protective forests for shielding wind and blown sand shall be determined as follows:

- Highly critical protective forests, which mean areas where exist wandering sand dunes or sand hillocks, banks adjacent to the terrain of wandering sand or sand shoals; sand running under rainwater, flood water, storms, or inland areas being filled or aggraded with sand, causing damage to cities, provincial towns, areas planned for development, national or provincial infrastructure or socio-cultural projects, concentrated agricultural or industrial establishments, or areas where villages, roads, bridges and sewers are in danger of being buried with sand, each on an area of over 100 hectares.

- Critical protective forests, which mean areas where exist stationary sand dunes, coastal sand banks, inland areas in danger of being filled or aggraded with sand in 5-10 years, causing damage to district townships, commune cluster centers, district or inter-district infrastructure or socio-cultural projects, or areas where exist few fields or small-sized and scattered factories, or areas where villages, roads, bridges or sewers are not in danger of being buried with sand in 5 years, each on an area of less than 100 hectares.

- When determining these areas on site, local opinions should be taken into consideration, while one or two sub-criteria (if deeming it necessary) may be added to suit the peculiar characteristics of local sand areas.

**3. Protective forests for breaking waves and encroaching upon the sea**

- Protective forests for breaking waves and encroaching upon the sea aim to break waves, combat erosion and protect coastal projects.

**3.1. Criteria for classifying protective forests for breaking waves and encroaching upon the sea**

*a/ Criterion 1: Subjects of protection*

- Coasts: Land areas submerged in tide, with or without submerged forests, where forests can be planted, excluding islands and sandy soil.

- Estuary areas: An estuary area is demarked from both coastal edges of a river estuary to the brackish water area (where no submerged forest exists).

*b/ Criterion 2: Coasts- or river banks are divided into two states:*

- Erosive, or
- Non-erosive.

*c/ Criterion 3: Coast- or river bank-protecting projects are divided into two states:*

- With dikes or dams, or
- Without dikes or dams.

*d/ Criterion 4: Distance from seawater level in the average tide*

- For coasts: + Between 0 and 200 m  
+ Between 200 and 500 m
- For estuaries: + Between 0 and 50 m  
+ Between 50 and 200 m  
+ Between 200 and 500 m

**3.2. Determination of areas of protective forests for breaking waves and encroaching upon the sea**

On the basis of the aforesaid criteria, protective forests for breaking waves and encroaching upon the sea shall be determined as follows:

- Highly critical protective forests, which mean coastal areas 200 m from the seashore in the average tide, or estuary areas with or without dikes or dams, and erosive areas 50 m from the seashore in the average tide. In case of erosive estuary areas, this distance must be up to 200 m.

- Critical protective forests, which mean coastal areas where exist no dikes or dams, between 200 m and 500 m from the seashore in the average tide, or estuary areas without dikes or dams, between 200 m and 500 m, from the seashore in the average tide. In case of non-erosive estuary areas, protective-cum-production forests may be determined at a distance of between 50-200 m from the seashore in the average tide.

**4. Protective forests for environmental protection**

- Protective forests for environmental protection aim to condition climate, fight pollution in populated areas, urban centers and industrial parks, and concurrently to serve tourism and convalescence.

- Protective forests for environmental protection mean the system of forest belts, forest strips and vegetational coverage intermingling with population quarters, industrial parks and tourist sites, aiming to fight air pollution, creating a clean environment and beautiful landscapes in association with recreation, sightseeing and tourism. They include also forest strips along national highways aiming to reduce noise level and dust. Depending on each type of road, roadside protective forest strips may be 10-50 m wide.

- The per-capita acreage of protective forests for environmental protection shall be around 20 m<sup>2</sup>, determined for each specific project by each locality, depending on their requirements.

***For the Minister of Agriculture and  
Rural Development  
Vice Minister  
HUA DUC NHI***