

## **AGREEMENT OF ENVIRONMENTAL CONDITIONS**

### **TERMS AND CONDITIONS OF APPROVAL IN ACCORDANCE WITH THE PROVISIONS OF THE TO SECTION 6(B) OF THE CONSERVATION OF ENVIRONMENT (PRESCRIBED ACTIVITIES) ORDER, 1999**

**Existing Forest Logging @ Lot xx of 1000 Hectares on Part of xx Forest Reserve by xxx  
Sdn. Bhd. at xxx, Sabah Malaysia.**

**Ref.:** JKAS/PP/xxxxxx

**Date:** 01 February 2001

#### **1.0 PROJECT CONCEPT**

1.1 The Terms and Conditions of Approval contained herein are applicable to the activities related to the 'Proposed Forest Logging of 1000 Hectares on Part of xx Forest Reserve by xx Sdn Bhd at xx, Sabah Malaysia'. These Terms and Conditions of Approval are only applicable within the area specified in the EIA report submitted to the Environmental Conservation Department (ECD).

1.2 The Terms and Conditions of Approval contained herein are based on the review of the findings contained in the report, "Proposed Forest logging @ xx Commercial Forest Reserve, xx, Sabah, submitted to the Environmental Conservation Department (ECD) on xx 2000.

#### **2.0 LEGAL REQUIREMENT**

2.1 The legal requirement for Environmental Impact Assessment (EIA) in respect of forest logging activities is stipulated in item 2(i) of the First Schedule of the Conservation of Environment (Prescribed Activities) Order, 1999.

#### **3.0 COMPLIANCE OF MITIGATING MEASURES**

3.1 Pursuant to subsection 3(1) and 3(2) of the Conservation of Environment Enactment 1996, xx Sdn. Bhd. is hereby directed to undertake, adopt and comply with all the mitigating measures outlined in section 3.0 of this Agreement and implement other environmental protection measures as directed by the ECD with effect from the date of signing an undertaking to comply with the approval conditions.

3.2. In the event of a breach of the present Undertaking, the Director of ECD may by notice in writing direct the activities to cease forthwith or compound the offence according to the provisions given in subsection 3(3) of the Conservation of Environment Enactment, 1996.

3.3 xx Sdn. Bhd. shall agree to the fact that the mitigation measures listed in this agreement may be changed or added, depending upon the effectiveness of the mitigation measures and the subsequent impacts on the environment.

3.4 The following mitigating measures 4.0-12.0 provide the necessary terms and conditions of approval in respect of the logging activities in the area specified in the EIA report.

#### **4.0 EXCLUSION OF HIGH-RISK SOIL EROSION AREA**

4.1 No logging is allowed on the high-risk soil erosion area as mapped in Figure 5.1(c) in the EIA report.

4.2 The high-risk soil erosion area mapped in Figure 5.1(c) shall be demarcated minimum two month after the signing of the Undertaking with red paint.

##### *Monitoring requirements for 4.0*

4.3 Within two months of the signing of the Undertaking, the Project Proponent shall submit to the ECD, (i) a description of works undertaking in relation to protection and demarcation of the high risk soil erosion area, (ii) a map on the largest available scale showing the actual demarcated area, and (iii) pictures of the demarcation as per Figure 5.1(c) in the EIA report from five different locations (locations shall be indicated on map).

4.4 The Project Proponent shall two times submit to the ECD: (i) a description of the status on the protection of the high-risk soil erosion area and (ii) an updated map showing the actual demarcated and not-logged area, and (iii) pictures taken from the same locations as per 4.3(iii). The first description, map and pictures shall be submitted by latest May 1 2001 (included in the midterm compliance report) and the second by latest two months before the expiry of the logging licence (included in the end compliance report).

#### **5.0 PROVISION OF RIVERINE RESERVES**

5.1 No logging is allowed in the riverine reserves of Sg xx, Sg xx, Stream C and Sg. xx within the project site as shown in Figures 5.1(a), 5.1(b) and 5.2(c) respectively in the EIA report. Logs harvested outside the riverine reserve must be felled away form the reserve, and no vehicle or tractor is to enter the riverine reserve except at the designated positions.

5.2 The riverine reserve of 20 meters on each side from the riverbank shall be demarcated with red paint within two month of signing the Undertaking.

##### *Monitoring requirements for 5.0*

5.3 Within two months of the signing of the Undertaking, the Project Proponent shall submit to the ECD:

- (i) A description of works undertaking in relation to protection of the riverine reserves
- (ii) A map on the largest available scale showing all actual demarcated riverine reserves of the the Sg xx as per Figure 5.1(a), of Sg xx as per Figure 5.1(b), and of Sg xx as per Figure 5.1(c) in the EIA report
- (iii) Pictures of the demarcation from five different locations (locations shall be indicated on map)

- (iv) A map on the largest available scale showing all planned river crossings in the demarcated riverine reserve.

5.4 The Project Proponent shall two times submit to the ECD: (i) a description of the status on the protection of riverine reserves, (ii) an updated map showing all actual demarcated and not-logged riverine reserves, together with pictures taken from the same locations as per 5.4 (ii), and (iii) an updated map showing all actual river crossing in the demarcated riverine reserve. The first description, map and pictures shall be submitted by latest April 20 2001 (included in the midterm compliance report) and the second by latest two months before the expiry of the logging licence (included in the end compliance report).

## **6.0 PROTECTION OF RIVERS NOT HAVING RIVERINE RESERVES**

6.1 A buffer zone of 20 meters for rivers not having riverine reserves (not covered by 5.0) shall be maintained. In the buffer zone:

- (i) Shall trees be felled in a direction away from the river
- (ii) Shall machine access cross by the shortest possible distance
- (iii) Shall river crossing bridges/culvert structures be constructed to minimise impacts on the river and surrounding vegetation
- (iv) Shall all debris be removed if a tree has been inadvertently felled into a watercourse without disturbance to the river banks
- (v) Are skidding along rivers not allowed.

### *Monitoring requirements for 6.0*

6.2 Within two months of the signing of the Undertaking, the Project Proponent shall submit to the ECD a description on the measures undertaken to protect rivers not having riverine reserves.

6.3 The Project Proponent shall two times submit to the ECD a description of the status of the protection of rivers not having riverine reserves. The first description shall be submitted by latest April 20 2001 (included in the midterm compliance report) and the by latest two months before the expiry of the logging licence (included in the end compliance report).

## **7.0 REDUCING THE AMOUNT OF DISTURBED AREA**

7.1 The disturbed area resulting from construction of main roads, secondary roads, skid trails, landings and base camp shall not exceed 12 % of the unit area being worked.

### *Monitoring requirements for 7.0*

7.2 Within two months of the signing of the Undertaking, the Project Proponent shall submit to the ECD a description on the measures undertaken to secure that the amount of disturbed areas will not exceed 12 % of the total unit area being worked.

7.3 The Project Proponent shall two times submit to the ECD a description of the status of the amount of disturbed areas. The first description shall be submitted by latest April 20 2001 (included in the midterm compliance report) and the second by latest two months before the expiry of the logging licence (included in the end compliance report).

## **8.0 MAIN ROADS, SECONDARY ROADS AND SKID TRAILS**

8.1 Existing main roads, secondary roads and skid trails shall be used, thereby reducing the creation of new exposed areas.

8.2 If old roads are upgraded or new roads constructed, soil shall not be pushed towards river banks.

8.3 Main and secondary roads shall not have a width more than 6 m.

8.4 Cutting and filling shall be kept to a minimum to reduce the exposure of bare soil and its potential to erode.

8.5 The Project Proponent shall secure proper maintenance of main and secondary roads in relation to road surface, roadside ditches, cross drains and road river crossings. The gravel road linking the project site and Kalabakan should be maintained regularly in conjunction with other logging operators in the area. Aggregate cover shall continuously be applied in order to minimise soil erosion and allow traffic during bad weather.

8.6 Skid trail width shall not exceed 4 m.

### *Monitoring requirements for 8.0*

8.7 Within two months of the signing of the Undertaking, the Project Proponent shall submit to the ECD a description on the measures planned or already undertaken to comply with the road and skid trail structure and maintenance conditions stated in 8.1 – 8.6 above.

8.8 The Project Proponent shall two times submit to the ECD a description of the status of the compliance with the road and skid trail structure and maintenance conditions stated in 8.1 – 8.6 above. The first description shall be submitted by latest April 20 2001 (midterm compliance report) and the second by latest two months before the expiry of the logging licence (included in the end compliance report).

## **9.0 LANDINGS & CAMPSITES**

9.1 Old landings and campsites shall be reused.

9.2 New landings and campsites shall be located in low erosion risk areas.

9.3 The size of landings shall be kept to maximum 0.2 ha (30 x 60 m), and campsites shall not exceed 0.4 ha (60 x 120 m) in size.

9.4 Landings and campsites shall be placed at least 20 m from rivers.

9.5 Runoff from landings and campsites shall be diverted to vegetated areas and not directly to rivers.

### *Monitoring requirements for 9.0*

9.6 Within two months of the signing of the Undertaking, the Project Proponent shall submit to the ECD maps and pictures of the actual and/or planned landing- and camp sites. The maps and pictures shall show (i) whether the landing and camp sites are new or old (reused), (ii) the size of the areas used and (iii) the distances to the nearest rivers.

9.7 The Project Proponent shall two times submit to the ECD maps and pictures of the status of the use of landing and camp sites. The first maps and pictures shall be submitted by latest April 20 2001 (included in the midterm compliance report) and the second by latest two months before the expiry of the logging licence (included in the end compliance report).

## **10.0 FELLING**

10.1 Directional felling shall be applied to avoid tree crowns falling into rivers, facilitate skidding and avoid creation of excessive and long skid trails.

10.2 Tractors shall only move along pre-planned skid trails.

10.3 No logging shall take place on slopes greater than 35 degrees.

### *Monitoring requirements for 10.0*

10.4 Within two months of the signing of the Undertaking, the Project Proponent shall submit to the ECD a description on the measures undertaken to comply with the felling conditions stated in 10.1 – 10.3.

10.5 The Project Proponent shall two times submit to the ECD a description of the status of the compliance of the felling conditions stated in 10.1 – 10.3. The first description shall be submitted by latest April 20 2001 (included in the midterm compliance report) and the second by latest two months before the expiry of the logging licence (included in the end compliance report).

## **11.0 STAGGERED LOGGING**

11.1 Logging shall be carried out in blocks progressively on one side of the river before proceeding to the next.

### *Monitoring requirements for 11.0*

11.2 Within two months of the signing of the Undertaking, the Project Proponent shall submit to the ECD a map showing the planned staggered logging.

11.3 The Project Proponent shall two times submit to the ECD a description and map of the implementation of the staggered logging. The description and map shall be submitted by latest April 20 2001 (included in the midterm compliance report) and the second by latest two months before the expiry of the logging licence (included in the end compliance report).

## **12.0 ABANDONMENT**

12.1 Orderly removal, rehabilitation and stabilisation of all structures and installations put up by the Project Proponent shall be carried out.

*Monitoring requirements for 12.0*

12.2 The Project Proponent shall submit to the ECD a description of the planned and/or actual removal, rehabilitation and stabilisation of used structures and installations. The description shall be submitted by latest two months before the expiry of the logging licence (included in the end compliance report).

**13.0 OTHER REGULATIONS TO BE OBSERVED BY THE PROJECT PROPONENT**

13.1 xxx Sdn. Bhd. shall comply with the regulations as prescribed by the Forest Department and other relevant Departments and Authorities.

13.2 Open burning is prohibited.

13.3 Handling, storage and disposal of wastes shall be done in accordance with the requirements from the Federal Department of Environment.

13.4 No protected or prohibited tree species, as stipulated in the Wildlife Conservation Enactment, 1997, or the Forest Enactment, 1968, are to be felled. All protected species will be marked with a yellow label.

13.5 No protected animals, as stipulated in the Wildlife Conservation Enactment, 1997, are to be caught or killed.

13.6. According to section 38 of the Wildlife Conservation Enactment, 1997, shall a notification be submitted to the Wildlife Department at least 30 days before commencement of logging activities.

13.7 Any discovery of artefacts, which are of historical, archaeological, cultural and artistic value, shall be reported to the Museum Department, Sabah, immediately.

**14.0 OBLIGATION OF THE PROJECT PROPONENT**

14.1 xxx Sdn. Bhd. shall sign an undertaking with the ECD to adopt and comply with all the Terms and Conditions of Approval contained herein for the protection and enhancement of the environment at the project site.

14.2 xxx Sdn. Bhd. shall ensure that the Agreement of Environmental Conditions are included in all contract agreements with respect to the logging activities, and that all these Agreement of Environmental Conditions are observed, complied with and implemented by all contractors, their agents and servants, appointed to carry out the activities.

14.3 xxx Sdn. Bhd. shall three (3) times submit a report to the ECD in form of an "Environmental Compliance Report". The list of content of these reports is shown in Annex. The first report shall be submitted two (2) month after the signing of the Undertaking, the second by latest April 20 2001 (the midterm compliance report) and the third by latest February 2002 (the end compliance report).

14.4 xx Sdn. Bhd. shall provide environmental reports on the situations of the environment as and when required by the ECD.

14.5 xxx Sdn. Bhd. shall display the Agreement of Environmental Conditions at its site offices.

14.6 xxx Sdn. Bhd. shall secure that the Environmental Conditions are incorporated in existing and/or new forest harvesting plans covering the area.

## **15.0 MONITORING AND SUPERVISION**

15.1 In order to ensure that all the terms and conditions of approval are implemented, monitoring and supervision of the project activities shall be carried out by submission to the ECD of three (3) compliance reports by the Project Proponent and by at least one (1) project on-site inspection undertaken by the ECD.

15.2 xxx Sdn. Bhd. shall provide its full support to the officers of the ECD when they carry out monitoring and supervision work.

## **16.0 CONSULTATION**

16.1 xxx Sdn. Bhd., the ECD and relevant parties as determined by the ECD shall hold consultations as and when required with regard to the protection and enhancement of the environment in the project.

**Annex.**

**FORMAT OF THE ENVIRONMENTAL COMPLIANCE REPORT**

**PROJECT TITLE**

**CONTENT**

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2. STATUS OF IMPLEMENTATION OF MITIGATION MEASURES SPECIFIED IN THE AGREEMENT OF ENVIRONMENTAL CONDITIONS:

2.1. EXCLUSION OF HIGH RISK SOIL EROSION AREA, as per 4.3-4.4

2.2. PROVISION OF RIVERINE RESERVE, as per 5.3-5.4

2.3. PROTECTION OF RIVERS NOT HAVING RIVERINE RESERVES, as per 6.2-6.3

2.4. REDUCING THE AMOUNT OF DISTURBED LAND, as per 7.2-7.3

2.5. MAIN ROADS, SECONDARY ROADS AND SKID TRIALS, as per 8.7-8.8

2.6. LANDINGS AND CAMPSITES, as per 9.6-9.7

2.7. FELLING, as per 10.4-10.5

2.8. STAGGERED LOGGING, as per 11.2-11.3

2.9. ABANDONMENT, as per 12.2

3. COMMENTS AND RECOMMENDATION/AMENDMENT TO THE MITIGATING MEASURES SPECIFIED IN THE AGREEMENT OF ENVIRONMENTAL CONDITIONS

4. OTHER COMMENTS & RECOMMENDATIONS

**APPENDICES**