

K RIDE/Projects/BSRP/Depot/Forest/62

Date: 29.12.2025

**The Deputy Conservator of Forests  
Bengaluru Rural Division  
Devanahalli, Bengaluru Dt.**

Sir,

**Sub.:** Compliance to Stage - 1 approval in connection with the proposal for diversion of 18.60 Ha of Forest land in Sy. No. 124 of Akkupete village, Kasaba Hobli, Devanahalli Taluk, Bengaluru Rural District for the construction of the Rail Depot under Bengaluru Sub - Urban Rail Project (BSRP) in favour of Manager, Rail Infrastructure Development Company (Karnataka) Limited, Samparka Soudha, Dr. Rajkumar Road, Rajajinagar, Bengaluru. **Proposal No. FP/KA/RAIL/142190/2021 [Form - A].**

- Ref.:**
1. Online application no. FP/KA/RAIL/142190/2021 submitted in PARIVESH portal of Ministry of Environment, Forest & Climate Change dated 09.05.2021 and resubmitted on 05.04.2022;
  2. PCCF (HoFF), GoK letter no. KFD/HoFF/A5-4(GFL)/14/2021-FC dated 30.09.2024;
  3. GoK letter no. FEE/252/FLL 2024(E) dated 04.11.2024 (Stage - 1 proposal);
  4. MoEF&CC, GoI, Regional Office, Bengaluru letter no. 4-KRC 1497/2024-BAN/483 dated 03.12.2024;
  5. PCCF (HoFF), GoK letter no. KFD/HoFF/A5-4(GFL)/14/2021-FC dated 18.12.2024;
  6. This office letter K-RIDE/Projects/BSRP/Depot/Forest/55 dated 24.03.2025;
  7. This office letter K-RIDE/Projects/BSRP/Depot/Forest/56 dated 24.03.2025;
  8. This office letter K-RIDE/Projects/BSRP/Depot/Forest/57 dated 27.03.2025;
  9. Meeting with PCCF/FC dated 22.04.2025;
  10. This office letter K-RIDE/Projects/BSRP/Depot/Forest/58 dated 30.04.2025;
  11. This office letter K-RIDE/Projects/BSRP/Depot/Forest/58 dated 30.04.2025;
  12. MoEF & CC letter no. 4.KRC 1497/2024-BAN dated 08.07.2025;
  13. Your office letter A4/DCF/BRD/KRIDE/CR-8/2022-23 dated 20.08.2025;
  14. K RIDE/ Projects/ BSRP/ Depot/ Forest/ 59 dated 24.09.2025;
  15. K RIDE/ Projects/ BSRP/ Depot/ Forest/ 60 dated 14.10.2025;
  16. K RIDE/ Projects/ BSRP/ Depot/ Forest/ 61 dated 15.10.2025;
  17. PCCF (HoFF), GoK letter no. KFD/HoFF/A5-4(GFL)/14/2021-FC dated 17.10.2025;
  18. GoK letter no. FEE/252/FLL 2024(E) dated 17.10.2025;
  19. MoEF&CC, GoI, Regional Office, Bengaluru letter no. 4-KRC 1497/2024-BAN dated 28.10.2025;

With reference to your letter cited at reference no. (19) above, in – principle approval/ Stage - 1 clearance of the Central Government was granted & issued. Further, a list of compliance(s)/ undertaking were sought for submission as listed below:

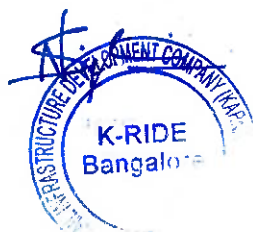
Sl. No.	Conditions	Compliance
1.	Legal status of the diverted forest land shall remain unchanged	Agreed
2.	The boundary of the diverted forest land shall be demarcated on ground at the project cost, by erecting four feet high reinforced cement concrete pillars, each inscribed with its serial number, forward and back bearing and distance from pillar to pillar.	Agreed
3.	The non-forest land identified for Compensatory Afforestation (CA) i.e. 18.61 ha. at Sy.No.65, Sasulu village, Sasulu Hobli, Doddaballapura Taluk, Bengaluru Rural District shall be transferred and mutated in favor of Forest Department. A copy of the original mutation details may be submitted along with the compliance report.	Mutation document was submitted to Forest Department, GoK earlier, however the same is enclosed as <b>Annexure-1</b> again.
4.	The User Agency shall transfer the cost of raising and maintaining the compensatory afforestation over an extent 37.20 ha. of degraded forest land at Survey Nos 73 of Thimmanapalli village & 77 of Kurapalli village, Nelavanki Hobli, Srinivaspura Taluk, Kolar District at the current wage rate in consultation with State Forest Department in the account of CAMPA of the concerned State through online portal.	UTR details of fund transfer is as follows: IBKL251229350751
5.	The Compensatory Afforestation shall be raised over an extent of 37.20 ha. of degraded forest land identified by State Forest Department at Survey Nos. 73 of Thimmanapalli village & 77 of Kurapalli village, Nelavanki Hobli, Srinivaspura Taluk, Kolar District Forest within 2 years from date on final approval and maintained thereafter by the State Forest Department at the cost of the User Agency and at least 1000 plants per hectare shall be planted.	Compliance may be obtained from DCF /Kolar
6.	A site-specific CA scheme for both the non-forest land and degraded forest land shall be provided to ensure that the CA plantation is successfully raised.	Site specific CA scheme provided by DCF, Kolar is attached as <b>Annexure-2</b>
7.	The User Agency in consultation with the State Forest department shall take up the translocation of important tree species such as Dalbergia Latifolia, which are present in the area proposed for diversion on an experimental basis at its cost. The Tree Translocation Plan prepared in consultation with the Forest Department shall be submitted along with Stage-I compliance report.	Agreed, In – principle plan for translocation is enclosed as <b>Annexure-3</b>



Sl. No.	Conditions	Compliance
8.	The User Agency/ State Forest Department shall furnish an undertaking to the effect that the kuccha road/temporary cart road present in the identified non-forest land for the purpose of CA shall be closed.	Compliance shall be provided at your end.
9.	The User Agency shall transfer online, the Net Present Value (NPV) of the forest land being diverted under this proposal as per the guideline issued by Ministry vide letter No.5-3/2011-FC (Vol-I) dated 06/01/2022 and as per the provision of Chapter 3 of the consolidated Guidelines and Clarification issued vide MoEF&CC order dated 29.12.2023.	UTR details of fund transfer is as follows: IBKL251229350751
10.	At the time of payment of the Net Present Value (NPV) at the prevailing rate, the User Agency shall furnish an undertaking to pay the additional amount of NPV, if so determined, as per the final decision of the Hon'ble Supreme Court of India.	Agreed and the undertaking is enclosed as <b>Annexure-4</b>
11.	All the funds received from the user agency under the project shall be transferred/deposited in CAMPA account only through e-portal ( <a href="https://parivesh.nic.in/">https://parivesh.nic.in/</a> ). Amount deposited through other mode will not be accepted as compliance of the Stage-I clearance.	Agreed
12.	The KML file of the forest area to be diverted and CA area (Both NFL and DFL) shall be uploaded on the e-green watch portal with all requisite details and GPS ID of the E-Green watch portal shall be submitted along with compliance report.	Compliance shall be provided at your end.
13.	The User Agency shall restrict the felling of trees to minimum number in the diverted forest land and the trees shall be felled under the strict supervision of the State Forest Department and the cost of felling of trees shall be deposited by the User Agency with the State Forest Department	Felling of trees will be carried out diligently and the upset price will be deposited to Forest Department, GoK.
14.	The State Government shall ensure controlled speed limit if the trains passing through the forest portion to enable the trains drivers to react to the sudden appearance of the wild animals on the track. As and when required speed of train shall be regulated in consultation with Chief Wildlife Warden of the State Government.	Agreed
15.	The designing of culverts/bridges, if any, over the natural streams/rivers/canals should be done in such a manner that it does not hamper the natural course of water, does not give rise to water-logging, and also does not hamper movement of wild animals	Agreed
16.	The user agency will provide retaining walls, breast walls and drainage as per requirement to make the slope stable	Agreed



Sl. No.	Conditions	Compliance
17.	The User agency, if required, will undertake comprehensive soil conservation measures in the area being diverted at the project cost in consultation with the State Forest Department	Agreed
18.	The period of diversion under this approval shall be co-terminus with the project life.	Agreed
19.	No labour camp shall be established on the forest land	Agreed
20.	No additional or new paths will be constructed inside the forest area for transportation of construction materials for execution of the project work	Agreed
21.	Sufficient firewood, preferably the alternate fuel, shall be provided by the User Agency to the labourer after purchasing the same from the State Forest Department or the Forest Development Corporation or any other legal source of alternate fuel.	KRIDE will ensure all the labour camps utilize alternate fuel such as LPG/Electricity/Solar devices for their Cooking & household activities.
22.	The forest land shall not be used for any purpose other than that specified in the project proposal	Agreed
23.	The total forest area utilized for the project shall not exceed 18.6 ha. The user agency shall furnish the undertaking to this effect	Agreed and the undertaking is enclosed as <b>Annexure-4</b>
24.	The forest land proposed to be diverted shall under no circumstances be transferred to any other agency, department or person without prior approval of the Central Government.	Agreed
25.	No damage to the flora and fauna of the adjoining area shall be caused	Agreed
26.	The user agency in consultation with the State Government shall create and maintain alternate habitat/home for the avifauna, whose nesting trees are to be cleared in this project. Bird's nests artificially made out of eco-friendly material shall be used in the area, including forest area and human settlements, adjoining the forest area being diverted for the project	Agreed
27.	User Agency shall obtain the Environmental Clearance as per the provisions of the Environment (Protection) Act, 1986, if applicable	The proposed land is intended for the construction of a Rail Depot under the Bengaluru Suburban Railway Project (BSRP). As BSRP constitutes a part of railway works or subsidiary railway works, and since railway projects are not included under Schedule-I of the EIA Notification, 2006, obtaining Environmental Clearance (EC) is not required for the suburban rail project.



Sl. No.	Conditions	Compliance
28.	The layout plan of the proposal shall not be changed without the prior approval of the Central Government	Agreed
29.	The User Agency shall submit the annual self - compliance report in respect of the above stated conditions to the State Government and Integrated Regional Office, Bangalore by the end of March every year	Agreed
30.	The compliance report shall be uploaded on e-portal ( <a href="https://parivesh.nic.in/">https://parivesh.nic.in/</a> ).	Agreed
31.	The user agency shall comply with all the provisions of the all Acts, Rules, Regulations, Guidelines, Hon'ble Court Order (s) and NGT pertaining to this project, if any, for the time being in force, as applicable to the project	Agreed
32.	The conditions required to be adhered under the Forests Right Act, 2006 as per the guidelines issued under Van (Sanrakshan Evam Samvardhan) Adhinyam, 1980 shall be strictly complied with.	KRIDE will adhere to Forests Right Act, 2006 as per the guidelines issued under Van (Sanrakshan Evam Samvardhan) Adhinyam, 1980
33.	Any other condition that the Ministry of Environment, Forest and Climate Change may stipulate from time to time in the interest of conservation, protection and development of Forest and Wildlife	Agreed
34.	Violation of any of these conditions will amount to violation of Van (Sanrakshan Evam Samvardhan) Adhinyam, 1980 and action would be taken as prescribed under the Act, Rules and Guidelines relevant.	KRIDE will adhere to (Sanrakshan Evam Samvardhan) Adhinyam, 1980

It is requested that the aforesaid compliances may kindly be reviewed and duly incorporated along with the compliances from your end, and the consolidated report submitted to the Regional Office of MoEF&CC for further necessary action.

Timely submission and issuance of the final clearance for the proposal will greatly facilitate the scheduled implementation of the project and shall be highly appreciated.

Encl.: 4 sets of copies

Yours sincerely



General Manager, SEMU

- CC: 1. ACS (FEE), GoK  
2. PCCF (HoFF), GoK  
3. CCF, Bengaluru Division





First

Previous

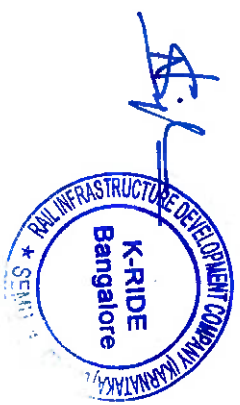
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Annexure-1

ರೈತರ ಆರ್ಥಿಕ ಸ್ಥಿತಿ ಸುಧಾರಣೆ ಮತ್ತು ಸರ್ಕಾರಿ ಸೇವೆಗಳ ಪರಿಷ್ಕರಣೆ (R.T.C) ಛಾಂಚ್ ನಂ. 02  
 Valid from 2024-07-25 18:19:00 To 2024-07-31 11:42:00  
 Print Page No: 1/2 Village Account Form No: 2

1. ಕರ್ನಾಟಕ ಸರ್ಕಾರ	2. ಕ್ರಮ ಸಂಖ್ಯೆ	3. ದಿನಾಂಕ	4. ಸಂಖ್ಯೆ	5. ವಿವರಣೆ	6. ಮೊತ್ತ	7. ಸರ್ಕಾರಿ ಸೇವೆ	8. ಸರ್ಕಾರಿ ಸೇವೆ	9. ಸರ್ಕಾರಿ ಸೇವೆ	10. ಸರ್ಕಾರಿ ಸೇವೆ	11. ಸರ್ಕಾರಿ ಸೇವೆ	12. ಸರ್ಕಾರಿ ಸೇವೆ	13. ಸರ್ಕಾರಿ ಸೇವೆ	14. ಸರ್ಕಾರಿ ಸೇವೆ	15. ಸರ್ಕಾರಿ ಸೇವೆ	16. ಸರ್ಕಾರಿ ಸೇವೆ
85		91.10.00.00	0.00	ಸರ್ಕಾರಿ ಸೇವೆ	0.00	ಸರ್ಕಾರಿ ಸೇವೆ	0.00	ಸರ್ಕಾರಿ ಸೇವೆ	0.00	ಸರ್ಕಾರಿ ಸೇವೆ	0.00	ಸರ್ಕಾರಿ ಸೇವೆ	0.00	ಸರ್ಕಾರಿ ಸೇವೆ	0.00
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\* ಬೆಳೆ ಸಮೀಕ್ಷೆ ಮಾಡಿ ಸಿಬ್ಬಂದಿಗಳಿಗೆ ಕಾರ್ಯ ನಿರ್ವಹಿಸುವುದನ್ನು ಕುರಿತು.

ಕರ್ನಾಟಕ ರಾಜ್ಯ ಸರ್ಕಾರ 1966 ರ ನಿಯಮ 40, 42, 58 ಮತ್ತು 70



ಸಂಖ್ಯೆ: 2024-2025  
 ದಿನಾಂಕ: 10/03/2022  
 ವಿಷಯ: ಕೆಆರ್‌ಐಡಿ ಕಾರ್ಯದ ಸಂಬಂಧಿಸಿದಂತೆ

View Only

ಕ್ರ.ಸಂ.	ವಿವರಣೆ	ಮೊತ್ತ	ಮೊತ್ತ	ಮೊತ್ತ
01	ಕೆಆರ್‌ಐಡಿ ಕಾರ್ಯದ ಸಂಬಂಧಿಸಿದಂತೆ	46000000	46000000	46000000
02	ಕೆಆರ್‌ಐಡಿ ಕಾರ್ಯದ ಸಂಬಂಧಿಸಿದಂತೆ	46000000	46000000	46000000
03	ಕೆಆರ್‌ಐಡಿ ಕಾರ್ಯದ ಸಂಬಂಧಿಸಿದಂತೆ	46000000	46000000	46000000
04	ಕೆಆರ್‌ಐಡಿ ಕಾರ್ಯದ ಸಂಬಂಧಿಸಿದಂತೆ	46000000	46000000	46000000
05	ಕೆಆರ್‌ಐಡಿ ಕಾರ್ಯದ ಸಂಬಂಧಿಸಿದಂತೆ	46000000	46000000	46000000
06	ಕೆಆರ್‌ಐಡಿ ಕಾರ್ಯದ ಸಂಬಂಧಿಸಿದಂತೆ	46000000	46000000	46000000
07	ಕೆಆರ್‌ಐಡಿ ಕಾರ್ಯದ ಸಂಬಂಧಿಸಿದಂತೆ	46000000	46000000	46000000
08	ಕೆಆರ್‌ಐಡಿ ಕಾರ್ಯದ ಸಂಬಂಧಿಸಿದಂತೆ	46000000	46000000	46000000
09	ಕೆಆರ್‌ಐಡಿ ಕಾರ್ಯದ ಸಂಬಂಧಿಸಿದಂತೆ	46000000	46000000	46000000
10	ಕೆಆರ್‌ಐಡಿ ಕಾರ್ಯದ ಸಂಬಂಧಿಸಿದಂತೆ	46000000	46000000	46000000



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 ಸಂಬಂಧಿಸಿದಂತೆ









## Translocation of Trees in Proposed Akkupete Forest Land



**K-RIDE Rail Infrastructure Development Company  
(Karnataka) Ltd.**  
*A Joint Venture of Govt. of Karnataka and Ministry of  
Railways*

**General Consultant**  
**Egis-AECOM-Louis Berger  
International (WSP)**

**Supported By**



**NOVEMBER 2025**



## 1. INTRODUCTION

Tree Transplanting is an old practice, which has been employed to rescue, save, or salvage certain trees, which are under threat of cutting or removal or damage due to various reasons. Though the practice is not new, the technique cannot be applied for all species of all ages at all places. It cannot be done on a large scale basis. Hence, this technique can be employed for a small scale, exigent situation and site specific reasons where few trees of immense importance can be tried for Transplanting.

Tree translocation (or transplanting) depends on a sequence of critical factors such as tree size, type of root system, methods of shoot and root pruning, overall health of the tree, distance of transportation, season of transplanting, soil characteristics, and prevailing local weather conditions at both the origin and destination sites. Additionally, pre- and post-transplantation care, long-term observation, and risk management play a vital role in ensuring the success of the process.

It is pertinent to note that a large number of well-grown trees often face the risk of felling during the implementation of developmental projects such as road widening, railway expansion, water-related infrastructure, and mining activities. Considering this genuine concern, the Regional Empowered Committee, in its meeting held on 24.10.2025, recommended undertaking tree translocation activities after identifying important species located within the proposed area of forest land diversion in Akkupete.

In accordance with this recommendation, K-RIDE has committed to carry out the translocation of significant tree species and ensure their maintenance for a period of three years. Till date we have translocated 118 Nos of trees which were infringing Bengaluru Sub-urban Railway project with GBA jurisdiction. K-RIDE has adopted tree translocation guidelines of University of Agricultural Sciences, GKVK, Bengaluru which was prepared as per the direction of Hon'ble High Court of Karnataka.



## 2. IDENTIFICATION OF IMPORTANT TREE SPECIES

2.1. Enumeration of tree in proposed Akkupete Forest land is carried out and submitted to REC which is enclosed as **Annexure-1**, a total of 17,711 Nos of trees are enumerated. Of which, few species like Aala, Basavanapaada, Hunse, Nerale and Beete are identified as potential trees which can be translocated.

Species	Quantity
Aala	10
Beete	19
Basavanapaada	10
Hunse	1
Nerale	10
<b>Total</b>	<b>50</b>

### 2.2. Receptor Site Selection

The receptor site selected should be in close proximity to the tree location or should have similar original soil conditions. The treatment of the receptor site also plays an important role in tree growth. The selected receptor site is shown as below in the **Annexure-2**.

### 2.3. Translocation Guideline

K-RIDE has adopted guideline of UAS, GKVK which is detailed in the **Annexure-3**



Annexure-02


Sl. No	Tree Name	Girth (0-30 cm)	Girth (31-60 cm)	Girth (61cm-90 cm)	Girth (91cm-120 cm)	Girth (121-150 cm)	Girth (>150 cm)	Total
1	Nile	17	17	6	2	2	2	37
2	Acacia	5471	5537	218	9	0	0	11185
3	Basavanapada	14	3	1	0	0	0	18
4	Bevu	1	1	0	0	0	0	2
5	Honge	11	5	2	0	0	0	18
6	Hunase	0	1	0	0	0	0	1
7	Kamara	8	5	0	0	0	0	13
8	Nilagiri	2208	3683	297	5	0	0	6193
9	Nerale	5	25	1	0	0	0	31
10	Seemetangadi	2	0	0	0	0	0	2
11	Godamba	0	4	1	0	0	0	5
12	Subabul	0	0	1	0	0	0	1
13	Taare	2	1	0	0	0	0	3
14	Dendrocalamus strictus	100 nos (30 Clumps)	0	0	0	0	0	100
<b>Total No of Trees</b>		<b>7684</b>	<b>9282</b>	<b>527</b>	<b>16</b>	<b>0</b>	<b>0</b>	<b>17609</b>

ವಜ್ರವಾಹಿನಿ ವಲಯ ವ್ಯಾಪ್ತಿಯ ಅಭಿವೃದ್ಧಿ ಕಾರ್ಯ ಅಧ್ಯಯನ ಪ್ರದೇಶದ ಸರ್ವೆ ಸಂ.124 ರ 18.6 ಹೆಕ್ಟೇರ್ ಅರಣ್ಯ ಪ್ರದೇಶದಲ್ಲಿ "ಬೆಂಗಳೂರು ಉಪ ನಗರ ರೈಲ್ವೆ ಯೋಜನೆಗೆ ನಿರ್ವಹಣಾ ಘಟಕ" ನಿರ್ಮಾಣ ಕಾರ್ಯಕ್ಕಾಗಿ ಈ ಒಂದು 17609 ಮರಗಳು ಅಳವಡಿಸಿರುವುದಾಗಿ ಮರಗಳ ಎಣಿಕೆ ಪಟ್ಟಿ ಸಲ್ಲಿಸಿವೆ. ಈ ಪಟ್ಟಿಯಲ್ಲಿರುವ ಮರಗಳನ್ನು ಪೂರಕವಾಗಿ, ಮರ ಸ್ಥಳದಲ್ಲಿ ಹೆಚ್ಚುವರಿಯಾಗಿರುವ ಮರಗಳ ಎಣಿಕೆ ಪಟ್ಟಿಯ ನಿವರಣೆ.

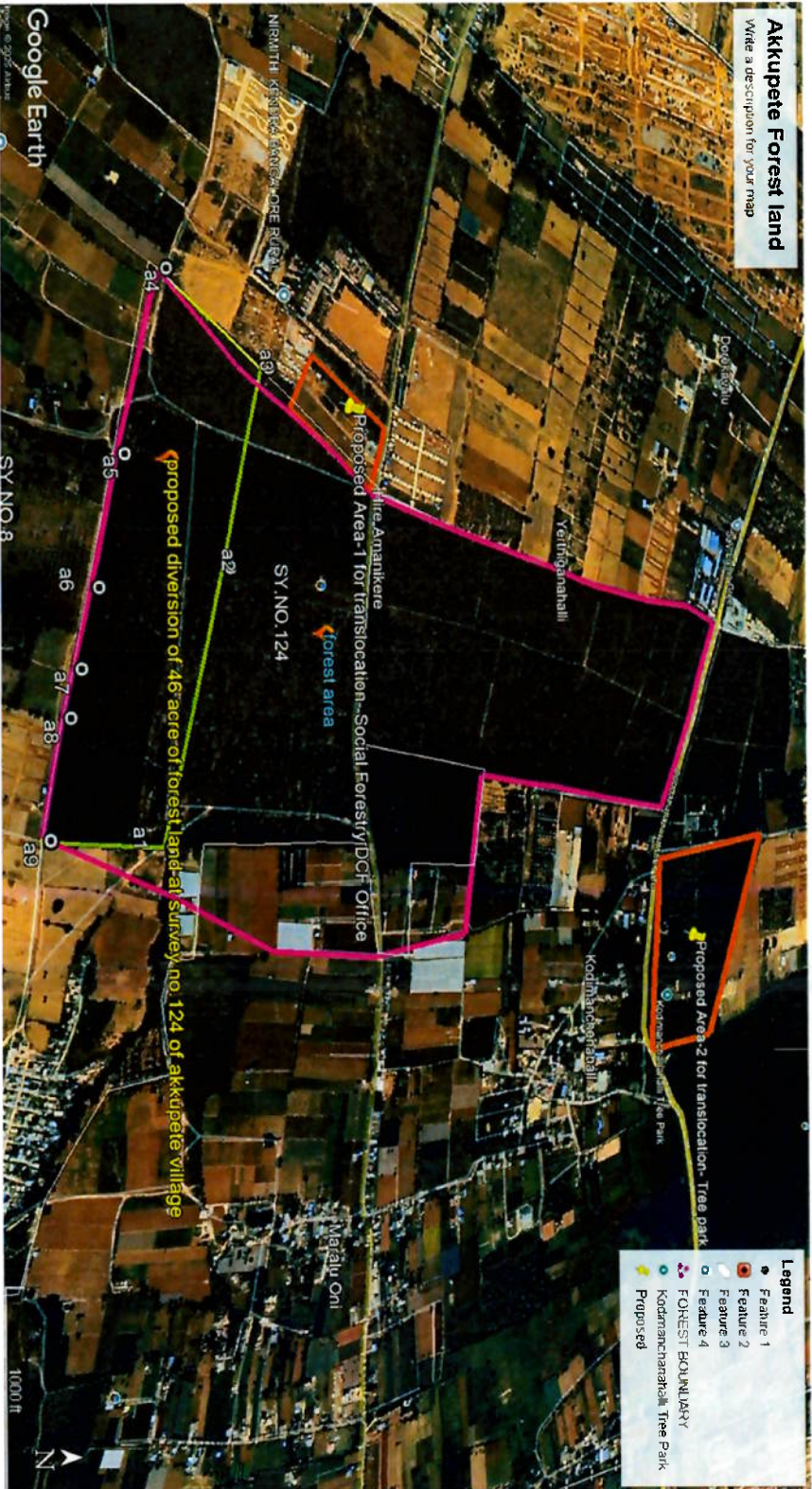
SL. No	Tree Name	Girth (0-30 cm)	Girth (31-60 cm)	Girth (61cm-90 cm)	Girth (91cm-120 cm)	Girth (121-150 cm)	Girth (>150 cm)	Total
1	Beete	20	10	0	0	0	0	30
2	Honne	0	0	1	0	0	0	1
3	Sandal	66	0	0	0	0	0	66
4	Pachare	0	0	5	0	0	0	5
<b>Total no of Trees</b>		<b>86</b>	<b>10</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>102</b>

  
Beat Forester  
Akkupete Beat

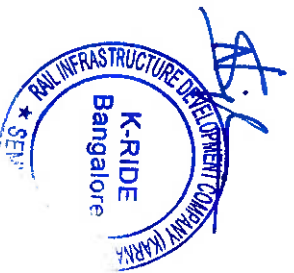
  
Deputy Range Forest Officer  
Devanahalli Section  
Devanahalli

  
Range Forest Officer  
Devanahalli Range  
Devanahalli





Two receptor sites were identified adjacent to the Akkupete forest boundary, the receptor sites is shown in red boundary.





## Guidelines for tree transplanting

Transplanting is the term used to describe the digging and replanting of trees from one location to a new location. Due to the wide extent and morphology of tree root system, transplanting of trees usually involves substantial removal of roots. The whole transplanting process in particular for large trees is an engineering feat and requires substantial involvement of resources and time.

A decision to transplant a tree should be based on a balancing consideration of its conditions, size, species, conservation status, amenity value, suitability for transplanting, environmental and cultural factors, functional and engineering considerations and cost effectiveness.

### Species:

Trees having particular significance and high conservation value would be recommendable for transplanting in case they cannot be preserved on site. Identified trees should be healthy and structurally sound, and invasive exotic tree species should not be considered for transplanting.

### Age, height and girth:

Conditions of the trees to be transplanted including health, form and structure will affect the success of the proposed transplanting.

The lifespan and health of the trees after transplanting have to be considered before transplanting to assess the cost effectiveness of the operation.

Trees with poor form/architecture, health or structure should not be considered for transplanting. If the tree has poor health, the rates of survival and recovery will be low. Trees suffer substantial stress and shock during construction and transplanting. A transplanted tree should be able to re-establish sufficient roots to sustain itself.

### Root system:

Larger trees need bigger root ball to encompass more roots to ensure adequate re-growth, as well as anchorage and stability. Transplanting may not be recommendable for situation where a reasonable root ball size cannot be achieved. International practices generally recommend a range of 8:1 to 10:1 for root ball diameter: trunk diameter. A larger root ball is recommendable for more mature trees to enhance better recovery after transplanting.

Root pruning is sometimes required before transplanting a tree. Sufficient time should be allowed between preparation and final lifting for development of new roots capable of sustaining and continuing the growth of the transplanted tree.

### Soil type:

Trees growing on slopes, retaining walls or areas where formation of a root ball of reasonable size is not practicable are considered not transplantable. Trees should not be transplanted to non-fertile soils like lateritic soil.



**Distance to travel:**

Access to existing and receptor locations, manoeuvring spaces and transportation to the receptor site (including availability of access to accommodate the tree, topography of proposed route, engineering limitation, etc.) and other site constraints should be considered.

Large transplanting machine may be needed. Accessibility of the site should be considered including the movement and set up of the transplanting equipment and the manoeuvrability of the operation machinery and vehicles.

**Season of transplant:**

Summer is not a common transplanting season as evapo-transpiration rate is high and the transplanted trees will be under stress when transplanting work is taken place during that time.

**Pre and Post care:**

- a) **Pit size:** The height, breadth and depth of pits depends on tree girth size

**Table.1: Pit size based on tree girth size**

S.No	Pit size (m <sup>3</sup> )	Girth class (m)	Size of the tree
1	2.0 X 2.0 X 2.0	0.1 to 0.5	Small
2	2.5 X 2.5 X 2.5	0.5 to 1.0	Medium
3	3.0 X 3.0 X 3.0	1.0 to 1.5	Large

**b) Digging:**

- **Stage 1:** Dig a trench on the outside of the marked circumference in only two opposing segments.
- **Stage 2:** After a period of not less than 1 month since the first root pruning, dig a trench on the outside of the marked circumference in the adjacent two opposing segments.
- **Stage 3:** After another period of not less than one month since the second root pruning, dig a trench on the outside of the marked circumference, in the remaining two opposing segments.
- **Stage 4:** After a further period of not less than 1 month since the third root pruning, prepare the root ball and cut the underside of the root ball, followed by uplifiting and transplanting.

- c) **Root trimming:** Cuts must be clean to avoid tearing or breaking the roots. All cut roots shall be trimmed cleanly back to the healthy tissues to reduce the split and torn roots. Sharp cut ends can promote a flush of new fibrous roots, helping the trees recover faster from injuries.

- d) **Crown pruning and cleaning:** Pruning of tree crown during transplanting may not be necessarily beneficial to the trees as thinning the crown can reduce the tree's capability in making food and building up reserves. Excessive pruning can ruin the natural form of a tree and reduce photosynthesis.

Crown cleaning however can be carried out to remove unhealthy, damaged,



diseased, dead and crossed branches so as to minimise susceptibility to pests and diseases.

- e) **Pre root treatment:** Tree roots should be treated with antitermite, antibacterial, antifungal and root hormones.

**Table 2: Active ingredients of root treatment chemicals**

S.No	Name	Chemical Name	Active ingredient	Quantity tree (L)
1	Anti-termite	Chloropyrifos 20% EC	4 ml/3 L water	8
2	Anti - bacterial	Bact:nash 200	17 g/3 L water	2
3	Anti - fungal	Corbondazim (Bavistin)	2 g/3 L water	15
4	Root hormone	I BA	2000 ppm	20

- f) **Preparation of pit at receptor site:** Tree lifting operations shall be carefully timed so as to enable direct delivery to the receptor site. No transplanting operations should commence until either the receptor site or the holding nursery is fully prepared. Tree uplifted must be transplanted and watered the same day. Watering before lifting is recommended.

Before uplifting, the outer edge of the previously dug trenches at receptor site shall be loosened from the surrounding soil and add 15 -25 kg of vermicompost or well decomposed matured farmyard manure or any compost per pit and watered to maintain soil moisture for longer time and easy establishment of roots.

- g) **Damp hessian (Gunny bag):** is placed on the sides and across the top of the ball and pinned. The hessian should cover the full circumference of the root ball with bottom skirt hanging out. This skirt is pinned to the root ball later after the tree is taken out of the hole. The base of the root ball should also be properly wrapped. This hessian shall be kept moist throughout the time of uplifting until the uplifted tree is transplanted in its new location.
- h) **Lifting and handling of trees:** Lifting should be done by direct lift, with padded protection for the tree, using a machine of appropriate capacity connected to the support around the root ball, not to any other part of the tree. Tree should not be lifted by the trunk as this can cause serious trunk injury but by its root ball which should be properly prepared and wrapped.
- i) **Planting:** Tree should preferably be placed in the same orientation from which they originated. Any branches damaged in transit should be properly pruned back to the nearest branch bark ridge.
- j) **After care/ post planting care:** Immediately following planting and where appropriate, a soil saucer can be formed on the soil surface around the edge of the root



ball circumference to permit rain or irrigation water to be retained and slowly infiltrate into the root ball perimeter to conserve soil moisture.

Mulch can be used to conserve soil moisture, to buffer soil temperature extremes, to control weeds and other competing vegetation, and to replenish organic matter and nutrients in the soil.

- k) **Nutrient management:** Fertilisation may be unnecessary unless nutrient deficiency is confirmed. Moderate release of nutrients by decomposition of both mulch and organic matter added to backfill soil may be sufficient during the initial establishment period.

Source: Greening, Landscape and Tree Management Section Development Bureau The Government of the Hong Kong Special Administrative Region, 2014)





**Rail Infrastructure Development Company (Karnataka) Limited**

(A joint Venture of Govt. of Karnataka and Ministry of Railways)



**ರೈಲು ಮೂಲಸೌಲಭ್ಯ ಅಭಿವೃದ್ಧಿ ಕಂಪನಿ (ಕರ್ನಾಟಕ) ನಿಯಮಿತ**  
(ಕರ್ನಾಟಕ ಸರ್ಕಾರ ಮತ್ತು ರೈಲ್ವೆ ಸಚಿವಾಲಯದ ಜಂಟಿ ಉದ್ಯಮ)

Date: 29.12.2025

## Undertaking

I, the undersigned, on behalf of Rail Infrastructure Development Company (Karnataka) Limited (K-RIDE), do hereby solemnly affirm and undertake that any additional Net Present Value (NPV), if determined pursuant to the final decision of the Hon'ble Supreme Court of India, shall be remitted by us.

This undertaking is issued in compliance with Sl. No. 10 and Sl. No. 23 of the Stage-I clearance conditions stipulated by the competent authority for diversion of forest land and shall be binding on the User Agency.

**(Pravindra Kumar)**  
General Manager/Depots  
Email id: gmc1@kride.in





07.01.2026

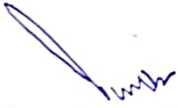
## Undertaking

I, the undersigned, on behalf of Rail Infrastructure Development Company (Karnataka) Limited (K-RIDE), hereby solemnly affirm and undertake to comply with and agree to all the points mentioned below:

1. Point No-1: Legal status of the diverted forest land shall remain unchanged
2. Point No-2: The boundary of the diverted forest land shall be demarcated on ground at the project cost, by erecting four feet high reinforced cement concrete pillars, each inscribed with its serial number, forward and back bearing and distance from pillar to pillar.
3. Point No-11: All the funds received from the user agency under the project shall be transferred/deposited in CAMPA account only through e-portal (<https://parivesh.nic.in/>). Amount deposited through other mode will not be accepted as compliance of the Stage-I clearance.
4. Point No-14: The State Government shall ensure controlled speed limit if the trains passing through the forest portion to enable the trains drivers to react to the sudden appearance of the wild animals on the track. As and when required speed of train shall be regulated in consultation with Chief Wildlife Warden of the State Government.
5. Point No-15: The designing of culverts/bridges, if any, over the natural streams/rivers/canals should be done in such a manner that it does not hamper the natural course of water, does not give rise to water-logging, and also does not hamper movement of wild animals
6. Point No-16: The user agency will provide retaining walls, breast walls and drainage as per requirement to make the slope stable
7. Point No-17: The User agency, if required, will undertake comprehensive soil conservation measures in the area being diverted at the project cost in consultation with the State Forest Department
8. Point No-18: The period of diversion under this approval shall be co-terminus with the project life.
9. Point No-19: No labour camp shall be established on the forest land
10. Point No-20: No additional or new paths will be constructed inside the forest area for transportation of construction materials for execution of the project work
11. Point No-22: The forest land shall not be used for any purpose other than that specified in the project proposal
12. Point No-24: The forest land proposed to be diverted shall under no circumstances be transferred to any other agency, department or person without prior approval of the Central Government.
13. Point No-25: No damage to the flora and fauna of the adjoining area shall be caused

14. Point No26: The user agency in consultation with the State Government shall create and maintain alternate habitat/home for the avifauna, whose nesting trees are to be cleared in this project. Bird's nests artificially made out of eco-friendly material shall be used in the area, including forest area and human settlements, adjoining the forest area being diverted for the project
15. Point No-28: The layout plan of the proposal shall not be changed without the prior approval of the Central Government
16. Point No-29: The User Agency shall submit the annual self -compliance report in respect of the above stated conditions to the State Government and Integrated Regional Office, Bangalore by the end of March every year
17. Point No-30: The compliance report shall be uploaded on e-portal (<https://parivesh.nic.in/>).
18. Point No-31: The user agency shall comply with all the provisions of the all Acts, Rules, Regulations, Guidelines, Hon'ble Court Order (s) and NGT pertaining to this project, if any, for the time being in force, as applicable to the project
19. Point No-33: Any other condition that the Ministry of Environment, Forest and Climate Change may stipulate from time to time in the interest of conservation, protection and development of Forest and Wildlife

This undertaking is issued in compliance with the Stage-I Clearance conditions stipulated by the competent authority for diversion of forest land and shall be binding on the User Agency.

 07/01/2026.  
**(Pravindra Kumar)**  
**General Manager/Depots**  
**Email id: gmc1@kride.in**