

Chapter 6

Encroachment / occupation of forest land and rehabilitation of villagers

The presence of villages and human habitations in and around the Protected Areas is one of the main reasons for fragmentation of habitats. Therefore, it becomes essential to ensure that boundary consolidation of Protected Areas are regularly taken up and demarcated, so that any unauthorised occupancy may be contained. Villages in any PA pose a major threat to the wildlife and also the inhabitants by Human Wildlife Conflicts. In view of this, it is imperative that villagers living inside the PAs are rehabilitated by providing grant of rights to tribals and other traditional forest dwellers. However, it was observed that habitat consolidation has not been ensured as observed from the continued encroachment of forests, slower settlement of rights under Forest Rights Act⁴⁴ (FRA), 2006 and sluggish rehabilitation and relocation works as brought out in the succeeding paragraphs.



Fig 6.1: a Fringe village with agricultural fields in Dandeli –Anshi Tiger Reserve (DATR).
b Village- agricultural land located inside Protected Area of DATR
Source: Images taken during field visits by Audit.

6.1 Encroachment of Forests

6.1.1 Increasing trend of encroachments over the years

The encroachment of forests in Karnataka showed an increasing trend between 1995 and 2011. The encroachment of forest area in Karnataka which was only 42,518⁴⁵ acre during July 1995, increased to 1,65,796 acres as per June 2011 Report⁴⁶. This further increased to 2,04,442 acres by October 2014⁴⁷. Thus encroachment of forest areas increased almost five times in 19 years.

In terms of Government of India (GoI) orders dated 18.09.1990, 15.05.1996, 04.08.2005 and Government of Karnataka (GoK) Order dated 5 May 1997⁴⁸, “Steps shall be taken by the State Government to evict all the unauthorised

⁴⁴ Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006

⁴⁵ Proposal sent to MoEF for regularization dated 15 July 1995

⁴⁶ Balusubramanian Report on encroachment of Government lands

⁴⁷ Affidavit submitted to High Court of Karnataka in WP No 15511-15514 of 2013

⁴⁸ GO No FEE 5 FGL 90 dated 05.05.1997

encroachments that have taken place over forest land after 27.04.1978". Though the orders were issued to evict all encroachments and to avoid further instances, encroachment of forest lands continued unabated as can be seen from the **Table 6.1:**

Table 6.1: Status of encroachments of Forest lands in Protected Areas

Name of the Sanctuary	Number of Forest Offence Cases booked towards encroachment	Total encroachment as on 31 March 2016		Encroachment below three acres		Encroachment above three acres	
		Number of cases	Area	Number of cases	Area	Number of cases	Area
Bandipur TR	159	1,121	4,522	729	1,536	392	2,986
Bhadra TR	21	21	69	14	17	7	52
BRT Tiger Reserve	1	11	19	11	19	0	0
Cauvery Wildlife Sanctuary	821	1,935	3,377	1,854	3,041	81	336
Dandeli-Anshi TR	0	591	239	578	181	13	58
Kudremukh National Park		140	305	118	206	22	99
Mookambika WLS	134	8	19	6	13	2	6
Someshwara WLS		1	1	1	1	0	0
Brahmagiri WLS		1	4	1	4	1	0
Pushpagiri WLS	11	11	28	9	20	2	8
Talacauvery WLS	6	7	27	4	12	3	15
MM Hills WLS	199	512	825	500	775	12	50
Nagarahole TR	5	5	30	0	0	5	30
Sharavathi WLS	26	26	62	17	22	9	40
Total	1,384	4,393	9,524	3,845	5,844	548	3,680

(Source: Details furnished by Karnataka Forest Department)

It was observed that the encroachments were for cultivation of food / horticultural crops, constructions of houses, *etc.* The current status of actual encroachments could be still higher for the following reasons:

❖ **Short booking of offences:** As per the Karnataka Forest Manual⁴⁹, any offence have to be booked immediately. Though as many as 4,393 encroachment cases were identified by the Protected Area management, we observed that offences were booked only in 1,384 cases. Since the balance 3,009 cases were not booked, legal action could not be initiated against these offenders.

❖ **Short accounting of encroachments**

We observed that there was a difference in the data regarding encroachment provided by the Division and the Ranges. Moliyur, Omarkar and Nugu Ranges of Bandipur Tiger Reserve indicated an encroachment of 5,037 acres, while the Division statistics stated the encroachments for these ranges was 3,351 acres. We observed a short account of 1,686 acres in this regard. Further, in respect of Nagarahole Tiger Reserve, we observed from the Departmental records that there was an encroachment of 148 acres by *eksali* lease holders in DB Kuppe Range which was not reflected in the Divisional statistics. Such discrepancies in the statistics of the Department have led to a short accounting of encroachment to the tune of 1,834 acres. In writ petition No: 15511-14/2013 filed in the High Court

⁴⁹ Paragraphs 63 (1), 64 and 68

of Karnataka relating to encroachment of forest areas in the State, the Department submitted that the total encroachment in the State was 2,04,442 *acres* as of October 2014. However, we observed that this statistics did not include the encroachment of 4,522 *acres* recorded by Bandipur Tiger Reserve. Hence, details furnished to High Court of Karnataka were incorrect.

❖ **Non conducting of periodical survey**

- A. Survey and demarcation works are to be taken up regularly to ensure that the boundaries are intact. It was, however, observed that survey and demarcation works to an extent of 87.62 km (2015-16) in Sharavathi WLS and 183 km (2013-15) in Bhadra TR only were taken up. In other sampled PAs such survey and demarcation were not taken up.
- B. In Hediya Range of Bandipur TR, the total area encroached was indicated as 803 acres and 3 guntas without giving the breakup of number of encroachers, extent encroached by each person, *etc.* Survey of this is yet to be conducted. In the absence of survey, the area indicated as encroached may not be factual.

Thus it could be seen that for assessing encroachments, periodic survey was not conducted, offences were not booked for all encroachment cases and there was short accounting of encroachments. The details of encroachments as furnished to audit and Karnataka High Court did not reflect ground realities, as brought out above. Also, the Department is having Information Communication Technology Centre (ICT) which has access to satellite imageries and other spatial information relating to the Forest Department. With the help of satellite imageries available over a period of time, the Department could have taken up GPS⁵⁰ survey of the encroachments found in the PAs which would have helped in assessing the extent of encroachments and its monitoring. Thus, the assessment of encroachments recorded by the Divisions was found to be highly doubtful and the technology based tools to assess this were not utilised in spite of their availability.

6.1.2 Satellite imagery based assessment of encroachments

A detailed analysis of spatial data was conducted with the co-ordination of IISc⁵¹, in connection with the extent of encroachments in Protected Areas of Karnataka. The boundary and cadastral maps relating to Protected Areas were obtained from Forest Department and KRSAC. These maps were superimposed on the satellite imageries by IISc to find out the extent of encroachment of forests in Protected Areas. The spatial analysis conducted by IISc involved (i) base map preparation, (ii) identification of different types of encroachment, data analyses, *etc.*, and (iii) changes noted temporally in Protected Areas. The encroachments were marked by overlaying forest boundary with land parcel numbers. The encroachments were identified by different colour patterns of the satellite images, compared to the adjoining forest area. This aided in mapping unauthorised land holdings within the Protected Areas. The marked areas were digitized and extents were computed.

⁵⁰ Global Positioning System

⁵¹ Centre for Ecological Studies, Indian Institute of Science

The analysis indicated that large areas have been encroached in Malai Mahadeswara and Cauvery WLSs. The map indicating the encroachments in these sanctuaries has been brought out at **Fig 6.2 and 6.3** below.

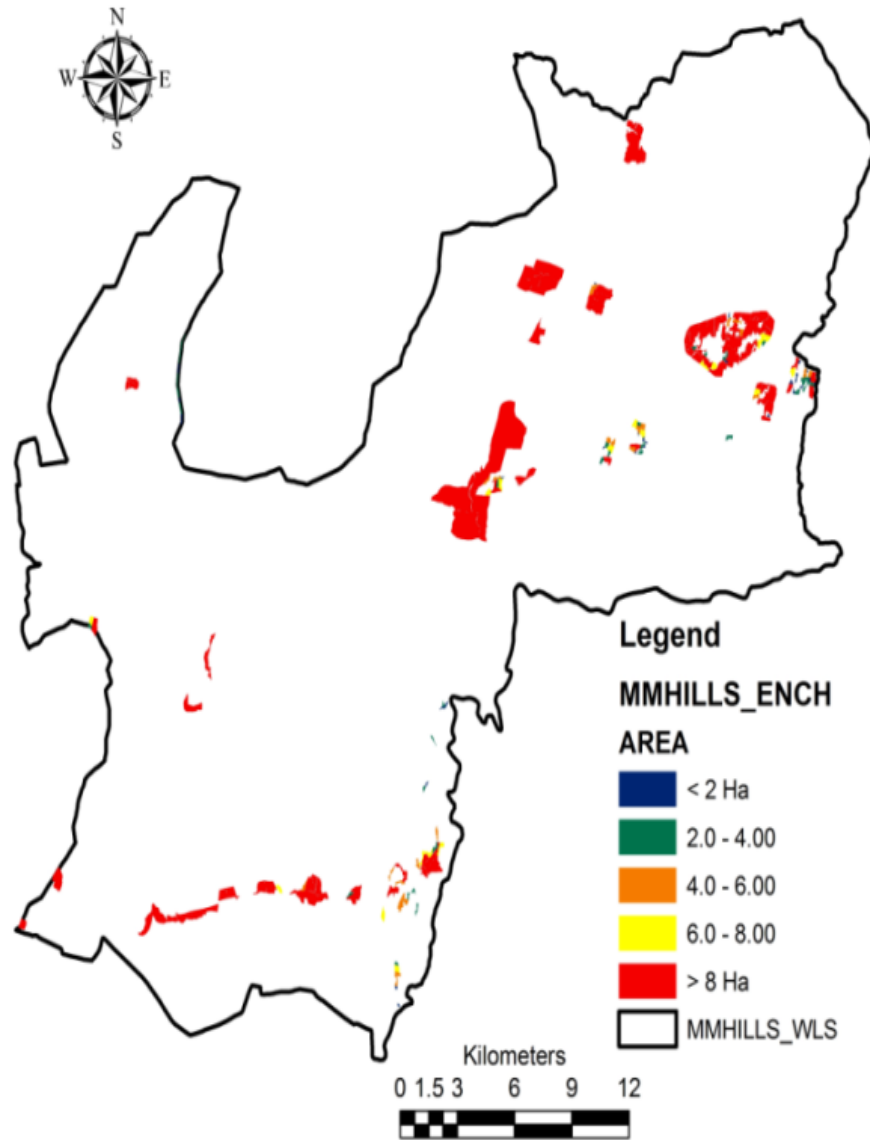


Fig 6.2: Classification of encroachments in MM WLS.

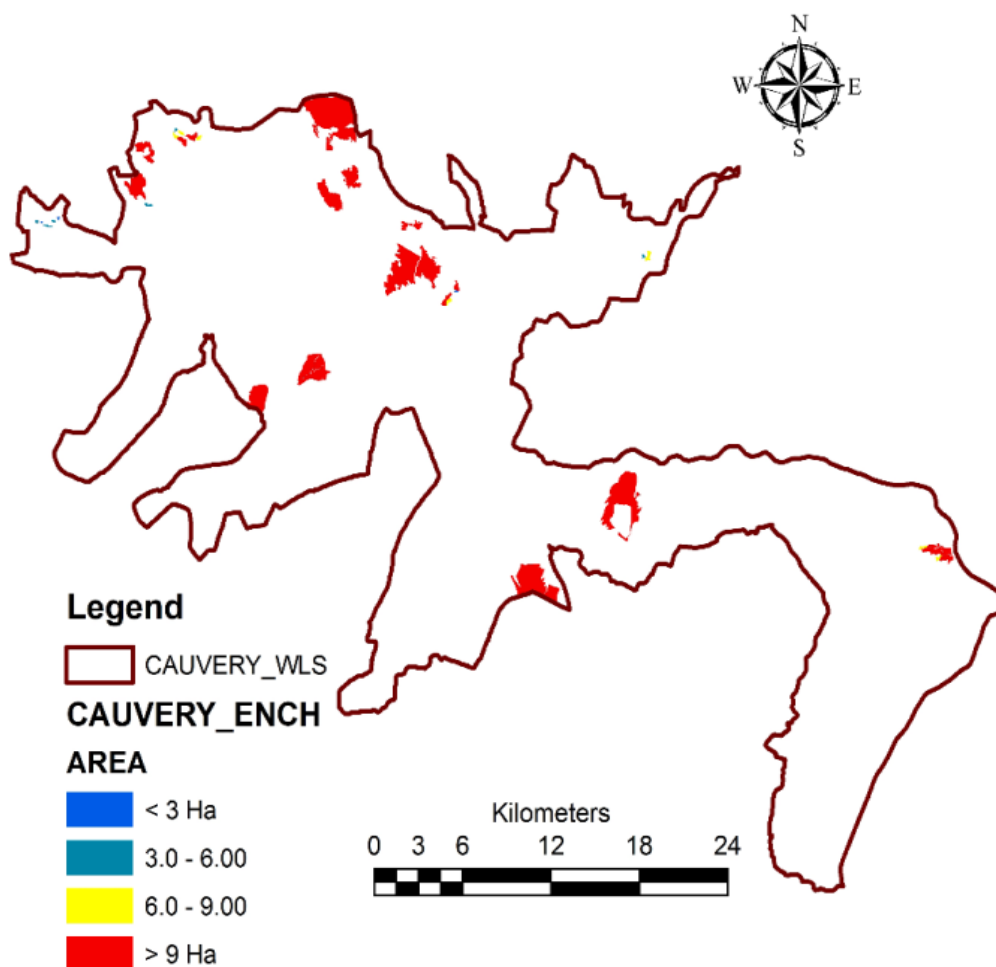


Fig 6.3: Classification of encroachments in Cauvery WLS.

Source: Indian Institute of Science

Further comparison of encroachments as assessed by IISc and those recorded by the Divisions indicated that the encroachments recorded by Department were less than the satellite based analysis as brought out in the **Table 6.2** below:

Table 6.2: Encroachments recorded vis-a-vis Satellite assessments

(Area in acres)

Sl No	Name of the Protected Areas	Area of encroachment as per IISc analysis	Area of encroachment as per Department	Difference
1	Bhadra Tiger Reserve	86.13	69.00	17.13
2	Brahmagiri WLS	72.90	1.00	71.90
3	BRT Tiger Reserve	8,193.18	19.00	8,174.18
4	Cauvery WLS	8,772.95	3,377.00	5,395.95
5	Dandeli-Anshi Tiger Reserve	2,033.25	239.00	1,794.25
6	Kudremukh National Park	325.30	305.00	20.30
7	Malai Mahadeswara WLS	7938.20	825.00	7113.20
8	Mookambika WLS	1,162.35	19.30	1,143.05
9	Nagarahole Tiger Reserve	1,145.03	30.00	1,115.03
10	Pushpagiri WLS	30.83	28.00	2.83
11	Sharavathi WLS	1,357.65	62.00	1,295.65
12	Someshwara WLS	513.03	0.60	512.43
13	Talacauvery WLS	46.20	27.00	19.20
Total		31,677	5,001.9	26,675.6

Source: Details furnished by Forest Department and Indian Institute of Science

Thus, it could be seen that the satellite based imageries indicated a very high degree of encroachments (six times) as compared to that recorded by the Department, especially in respect of Mookambika, Sharavathi, Someshwara, Cauvery, Brahmagiri, Malai Mahadeswara WLSs and Dandeli-Anshi, Nagarahole Tiger Reserves (**Appendix 4**). This analysis needs to be applied at ground level to assess the exact area under encroachment for taking appropriate action for clearing encroachments.

The Government stated during the Exit Conference that the difference could partly be due to presence of settlements inside PAs and agreed to examine the same.

6.1.3 Clearance of encroachments

There was very slow progress in clearance of encroachments during the last five years. The details of encroachments evicted in sampled Protected Areas have been abstracted in **Table 6.3**.

Table 6.3: Additions and clearance of encroachments during 2011-12 to 2015-16

Name of the Protected Area	Encroachments as of April 2011		Additions during 2011-16		Encroachments cleared during 2011-16		Balance encroachments as of March 2016	
	No. of families	Area	No. of families	Area	No. of families	Area	No. of families	Area
Bandipur TR	306	1,036	815	3,353	0	0	1121	4,522
Bhadra TR	28	108	0	0	7	39	21	69
BRT Tiger Reserve	17	39	0	0	6	20	11	19
Cauvery Wildlife Sanctuary	815	1,237	0	0	157	323	**1,935	3,377
Dandeli-Anshi TR	591	239	0	0	0	0	591	239
Kudremukh Wildlife Division	168	375	1	1	20	51	149	325
Madikeri Wildlife Division	27	59	0	0	5	3	22	56
Malai Mahadeswara WLS	525	858	*18	*35	13	33	512	825
Nagarahole TR	0	0	5	30	0	0	5	30
Sharavathi WLS	26	62	0	0	0	0	26	62
Total	2,503	4,013	839	3,419	208	469	4,393	9,524

Source: Karnataka Forest Department

* addition of 18 FOC cases were not added to Closing Balance

**includes 1277 cases involving 2463 acres transferred to Cauvery WL Division from Ramanagara and Mandya Divisions

As per Action Plan submitted (October 2014) by the Department to the High Court of Karnataka in Writ Petition relating to encroachment of forests, 1,041⁵² acres of encroachments relating to the above PAs were to be cleared by July 2015. However, it was observed that this could not be achieved as only 469 acres of encroachments were reclaimed till date.

In addition, as per the orders and instructions issued by GoI dated 15.05.1996, 3.5.2002, 4.8.2005 and Orders dated 10.10.1991 and 05.05.1997 issued by GoK, action has to be taken to clear all the encroachments that took place after 27.04.1978. On scrutiny of records, it was however observed that out of the encroachments outstanding as of March 2016, except 69 families involving 40

⁵² The action plan targets for eviction of encroachment submitted by the Department did not include Nagarahole and Bandipur NPs

acres in Dandeli, 4,324 families involving 9484 *acres* pertained to the period after 1978 and these encroachments should have been cleared as per GoI instructions. However, only 208 cases involving 469 *acres* were reclaimed during the last five years as aforesaid.

During the Exit Conference, it was stated that delay in settling the rights under FRA was the main reason for non achievement of targets in encroachment clearance. Since encroachment is a serious concern for PAs, the Department has to establish necessary tie up with Department of Tribal Welfare, Revenue Department and local bodies concerned for early settlement of rights under FRA.

6.1.4 Incentivising the encroachers

Government in Order dated 21.09.2015 issued instruction to the Department to prepare and submit Division / Circle-wise proposal to GoI through DCF, CCF & PCCF to relocate and rehabilitate the encroachers who have encroached less than three *acres* (3 *acres* including both encroached land and his own *patta* land).

In this regard, it was observed that:

- ❖ As per the GoI orders dated 15.05.1996, action had to be taken to clear all the encroachments that took place after 27.04.1978 and no further regularisation was acceptable. Therefore, the instructions issued by the GoK in September 2015 not to clear encroachments below three *acres* were contrary to the instructions issued by the GoI.
- ❖ Out of total encroachments of 9,524 *acres* recorded in the sampled Protected Areas, it was observed that 3,845 families involving an extent of 5,847 *acres* of forest land were categorised as 'below 3 *acres*' by considering only the encroached forest land and not the land owned by them. Classifying encroachers as "below 3 *acres*", without conducting joint survey with the Revenue Department, could lead to undue benefit to the encroachers.

The act of not evicting the persons who encroached forest lands after 1978 as per GoI guidelines and rehabilitating "below three *acres*" encroachers is tantamount to incentivising these encroachers.

Recommendation 7: Survey and demarcation along with Global Positioning System (GPS) and satellite imageries of all the Protected Areas should be done on priority basis. Department's Information Communication Technology Centre may update its database of encroached area so that appropriate action can be taken to reclaim these areas.

6.2 Allowing Rights under Forest Rights Act

Forest Rights Act, 2006, is an Act to recognize and vest the forest rights and occupation in forest land to forest dwelling scheduled tribes and other traditional forest dwellers who have been residing in such forests for generations but whose rights could not be recorded. FRA also provides for a frame work for recording the forest rights so vested and the nature of evidence required for such recognition and vesting in respect of forest land.

The Act provides that the forest rights recognised under this Act in critical wildlife habitats of National Parks and Sanctuaries may subsequently be modified or resettled, provided that no forest rights holders shall be resettled or have their rights in any manner affected for the purposes of creating inviolate areas for wildlife conservation. This act applies to forest dwelling scheduled tribes and to other traditional forest dwellers who had occupied forest land before 13 December 2005. The role of Forest Department is limited in this regard and the Grama Sabha plays a vital role in settlement of FRA. The details of applications received under FRA, applications accepted, survey conducted and applications pending have been abstracted in **Table 6.4**.

Table 6.4: Progress achieved in settlement of Rights under FRA

Name of the Division/WLS	Applications received	Applications rejected	Application pending	Rights granted
Bhadra Tiger Reserve	8	-	8	-
BRT Tiger Reserve	2171	630	1541	-
Cauvery WLS	300	10	83	207
Dandeli-Anshi TR	453	-	453	-
Kudremukh Wildlife Division	83	-	83	-
Madikeri Wildlife Division	155	130	17	8
MM Wildlife Sanctuary	381	1	72	308
Nagarahole TR	1282	-	411	871
Sharavathi WLS	2103	-	2103	-
Total	6936	771	4771	1394

(Source: Details furnished by Karnataka Forest Department)

The delay in recognition of rights would result in occupation of forest lands by these applicants, including those not eligible, which would only add to the fragmentation of Protected Area habitat. Since the right holders are eligible for rehabilitation and relocation, delay in settling would result in occupation of both eligible and ineligible applicants contributing to degradation of Protected Area habitats. The constraint in eviction of encroachments were stated⁵³ to be implementation of FRA, dispute about boundaries, inadequate staff, absence of legal assistance to Forest Divisions, stay orders of Courts, law and order linked with encroachment eviction, *etc.*

Since encroachment is a serious issue requiring immediate attention and action, it is necessary to conduct joint survey of forest land, speedy implementation of FRA, deployment of adequate manpower, better co-ordination with Revenue, Police and other related Departments to address the issue.

Recommendation 8: Forest Department may coordinate with Revenue, Police and other related Departments to expedite the grant of Forest Right to eligible right holders and evict encroachers.

6.3 Rehabilitation and relocation

As per the National Wildlife Action Plan, 2002 “It is well recognised that the local communities are put to a lot of hardship after notification of any area as National Park or Sanctuary. They are also susceptible to the threats from wild

⁵³ Action Plan for eviction of encroachments in Karnataka State submitted by Forest Department to High Court of Karnataka in October, 2014

animals to life and property. A conscious effort should be made by the Government to ensure that as far as possible the relocation and rehabilitation should be made in a participatory manner taking the concerned people into confidence particularly with regard to the selection of new sites.” The inputs given by the Government for relocation / rehabilitation should include civic amenities to be created at the new site and all the facilities should be provided to the people who volunteer to move outside National Parks and Sanctuaries. The rehabilitation and resettlement of people living inside the Protected Areas would reduce competition between villagers and species living inside the PA as also minimise the impacts of anthropogenic activities on the endemic / endangered species.

Rehabilitation and resettlement is being implemented in three Tiger Reserves, *i.e.*, Bhadra, Nagarahole and Dandeli-Anshi as per NTCA guidelines which gives following two options to the villagers residing in the Protected Areas.

Option 1: Payment of the entire package amount (₹ 10 lakh per family), in case the family opts so, without involving any rehabilitation / relocation process by the Forest Department.

Option 2: Carrying out complete relocation / rehabilitation of village from Protected Areas by the Forest Department.

The rehabilitation works are executed based on the applications and options exercised.

With reference to Kudremukh National Park, voluntary rehabilitation is implemented under a GoK scheme which includes payment of compensation for the assets held by the applicant. The compensation would include compensation fixed as per Land Acquisition Act for their land, structure and *malki*⁵⁴ existing in their land, cash *in lieu* of free house plot, house construction grant, lump sum grant for transportation, subsistence grant, land purchase grant, *etc.*

Under the above programmes, the applications received would be processed by the PA managers and payment would be made under the approval of District Committee headed by the Deputy Commissioner of the District.

While State funds are being used for rehabilitation in Kudremukh NP and Dandeli-Anshi TR, both Central and State funds are being used for rehabilitation in Bhadra and Nagarahole NPs. The details of progress achieved in rehabilitation have been abstracted at **Table 6.5** below:

⁵⁴ All the standing trees in the land

Table 6.5: Details of families rehabilitated in Protected Areas

(₹ in crore)

Name of the Protected Area	Year in which process commenced	No. of families inside PA	Applications received	No. of families rehabilitated	No. of families yet to be rehabilitated	Expenditure incurred	Fund required to rehabilitate remaining families
Bhadra TR	2000-01	736	514	431	83	16.04	4.01
Dandeli-Anshi TR	2013-14	6,316	629	101	528	7.44	52.8
Kudremukh National Park	2009-10	1,382	536	190	346	51.67	121.5
Nagarahole TR	1998-99	1,974	831	635	196	22.94	*NA
Total		10,408	2,510	1,357	1,153	98.09	174.3

*Rehabilitation works have been taken up departmentally under option-II
(Source: Details furnished by the Department)

Thus it could be seen that:

- ❖ Out of the 10,408 families living inside the above PAs, 2,510 families have voluntarily applied for rehabilitation, out of which only 1,357 families could be rehabilitated.
- ❖ In Kudremukh National Park, 21 families covered under Special Component Plan (SCP) and 86 families covered under Tribal Sub Plan (TSP) have opted for relocation. Though the funds (₹ 1.6 crore and ₹ 5.49 crore) are available under SCP / TSP components, no action has been taken to conduct valuation of property which has resulted in slowing up of the process.

During Exit conference the Government accepted that fund constraint was the reason for slow progress and intimated that Compensatory Afforestation Fund Management and Planning Authority (CAMPA) funds would be used for the same. It was also stated that a new package with a lump sum payment of ₹ 15 lakh and a plot per family has been offered and is receiving good response.

Thus, it is evident from the above information that, though the families are willing to come out of the Protected Areas, the process of rehabilitation is delayed due to delay in acquisition of land for rehabilitation and non-completion of valuation by Revenue authorities. The delay in the process of rehabilitation would further delay the consolidation of habitat of key species like tiger and elephants, besides requiring developmental activities like maintenance of roads, power lines, schools and other infrastructure inside Protected Areas, the cost of which could be more than that required for onetime payment towards rehabilitation / relocation of these villagers outside Protected Areas.

Box 1

Success story of rehabilitation in Bhadra Wildlife Sanctuary⁵⁵

Relocation and Resettlement Project in India's Bhadra Wildlife Sanctuary was analysed during 2002 and 2006 by examining the relocation experience of 419 households who moved to two villages located outside the reserve. Out of 419 households, 61 per cent of relocated households were interviewed in 2002 and 55 per cent relocated households in 2006. In 2002, 71 per cent of households were satisfied with the relocation effort and their quality of life. In 2006, 52 per cent of households were satisfied with their quality of life. Four years after relocation, all households were found to have access to electricity, water, schools, health care, transportation, and communication facilities and many households had increased their income and assets. The relocation of villages will cause an overall decrease in forest disturbance, as well as diminished impacts of grazing, hunting, and collection of forest products. It is expected that, this will promote regeneration of several plant species, and recovery of animal populations.

Even though relocation has been attempted in many Indian PAs, (Gir National Park, Sariska Wildlife Sanctuary, Kanha National Park, Nagarhole National Park), the relocation was successful only in Bhadra Tiger Reserve.



Figure 6.4: (a) Rehabilitated house, (b) park, (c) Anaganavadi centre and (d). agriculture field at M C Halli rehabilitation village of Bhadra Tiger Reserve
Image Source: Karnataka Forest Department

Recommendation 9: Forest Department may consider framing a policy to employ one person from each displaced family as an incentive to encourage speedy rehabilitation.

⁵⁵ Making Resettlement Work: The Case of India's Bhadra Wildlife Sanctuary by Krithi K Karanth-2007