Appendix A: Census administrative units/ government structures Hubli-Dharwad.

Census administrative units

In the Census of India 2001, the following location code structure has been adopted:

Area	Indian names
State/ Union territory	State/ Union territory
District	Zilla Parishad
Sub-district	Taluk Panchayat
Village (areas)	Gram Panchayat
Town/ City	Town/ City
Ward	Ward/ Community Development Block

The census administrative units used below sub-district level are depended on the area/ settlement being either rural or urban. An urban centre as a town or city (a town 'becomes' a city when it has more than 100,000 inhabitants) is sub-divided in *Wards* or *Community Development Blocks (C.D.B.'s)*. In a rural area, *Village areas* are the smallest administrative units (containing a central village, its surrounding area and some smaller villages which fall within the *Village area* boundary). The total population of a *Village area* is not less than 1,500 and no more than 10,000 inhabitants (Hutter 1994). In the case of Hubli-Dharwad, the two cities cover two *Taluka*'s which is the Hubli-Dharwad Municipal Cooperation area, within this area the conurbation area is subdivided in *C.D.B.*'s and the remaining rural areas in *Village areas*

Government structures in Hubli-Dharwad

There are three levels of administration present in Hubli-Dharwad (in addition to central government): state, municipal (urban) and rural.

At state level (Karnataka State agencies) :

- Town Planning Department,
- Karnataka Industrial Estate Development Authority (KIEDA),
- Karnataka Pollution Control Board (KPCB),
- Karnataka Housing Board (KHB)
- Karnataka Slum Clearance Board (KSCB), a.o..

There are two principal bodies active at the *municipal(urban) level*:

- The Hubli-Dharwad Municipal Cooperation (Council) (HDMC), and;
- The Hubli-Dharwad Urban Development Authority (HDUDA)

"The HDUDA takes an urban-oriented, medium to long term, physical town and country planning approach, with emphasis on strategic planning. It is responsible for the planning of urban areas including areas of urban expansion and takes the stance of accommodating urban growth rather than making specific land use decisions. Each ten years it makes a strategic Regional Development Plan, which gives little attention to the sustainability of the environment. The role of the HDMC is the implementation of the plans of the HDUDA" (Brook, Purushothaman and Hunsal 2003).

The rural level is governed by the *Panchayati Raj* (rural local self-government) system, divided in the above mentioned Dharwad Zilla Panchayat (DZP), Taluka Panchayat and Gram Panchayat. In the rural-oriented three tier Panchayati Raj system, the DZP is primarily concerned with short-term socio-economic planning and adopts a non-spatial planning approach, *with no attention to land-use decision making, physical planning or environmental concerns*. The role of DZP is to allocate financial resources to specific project proposals by Village Development Committes at the Gram Panchayat level (lowest level village authorities) in accordance with Central and State government directions" (Brook, Purushothaman and Hunsal 2003).

Appendix B: Indian Industrial Development policy.

-Sites of Industrial areas in Hubli-Dharwad

Belur is situated 12km northeast of Dharwad and covers an area of 1312 acres which have been developed providing full infrastructural facilities. Tarihal is situated 10km from Hubli just south of the NH4 by-pass (outside the corridor zone), the area is 312 acres. Lakkamanhalli is located 4km from Dharwad towards Hubli, south of the main road connecting the cities and covers 73 acres. Sattur is situated at 9km fom Dharwad towards Hubli, north of the main road, it covers 54 acres. Rayapur is at about 8km from Dharwad, the areas is under development and covers 94 acres, an extension of 287 acres has been proposed. Finally Gokul area is situated along Gokul road which runs from Tarihall southeast to southwest, at the border of built-up area of Hubli city, opposite of a newly created bus terminal. The area covers 33 acres.

-Industrial Growth Centres have been identified all over India and Karnataka by the government of India. Dharwad district is one of the three districts in Karnataka allocated with this special industrial development project of the central government. A Growth Centre area ensures all infrastructural facilities like power, water, telecommunication, banking, post office, housing colony, schools and hospitals. In these large areas different zones are created, special provisions are made for industry categories like Chemical, Textile and General Engineering etc.. ('A brief note on Industrial Areas', KIADB 2000)".

-Industrial Areas are areas designated for industrial development on smaller scale than the growth centres. Appointed by the Karnataka Industrial Area Development Board, the areas are smaller and have the more basic amenities like roads, drains, power- and water-supply and occasionally a commercial complex for banks, telecommunication facilities etc. (A brief note on Industrial Areas, KIADB 2000).

Appendix C: Hindu-article "Unkal Lake encroachment" and "Rabi brings some hope for Rabi Crops'""



for express train

TIMES NEWS NETWORK

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Two more coaches Rain brings some hope for rabi crop

Appendix D: Village accountant survey

Village accountant survey

Name of village: Name of village accountant: Date:

1a.Main village in the village area:

1b.Other villages in the village area:

2a.Name and distance to the nearest city:

2b.Name and distance to the second nearest city:

2c.Location of the village relative to nearest city: N/E/S/W

=> Ask for village map

3a.Total geographical area of the village area (in acres):

3b.Land use forms (in acres):

Land use	2003	1998	1993
Cultivable land			
Net area sown			
Forest			
Pastures			
Village area			
Residential areas			
Industrial areas			
Roads			
Government land			
(functions: schools/			
colleges)			
Common lands			
Reasons for changes an	nd locations of land use	e change:	

3c.Soil types:

Soil type (in %)	Red	Black	Mixed	Rocky/ hillside
Percentage				
Location				

4a.Used irrigation sources:

Sources	2003	1998	1993	
Canal				
Tank				
Open well				
Wastewater (nrs)				
Borewell (nrs)				
Reasons:				

4b.Irrigation area

Acres under	2003	1998	1993
irrigation			
Mungary			
Hingary			
Summer			
Reasons:			

5. Population

	present	2001	1991
Inhabitants:			
Reasons for chang	e (in/out-migration)):	

6.a Land value:

Land value	Road side	Interior	Other:
(laks p/acre)			
2003			
1998			
1993			
Reasons:	·		

6b.

	2003	1998	1993		
Land transactions					
In-/decrease of number:					
In/outside village buy	ers:				

7.a Economic activities

	2003	1998	1993	
Percentage				
working outside				
village				
Percentage				
working in				
agriculture				
Percentage				
working off-farm				
Reasons:		·		

7b.Non-agricultural land use forms:

	2003	1998	1993	
Brick kilns				
Mines				
Gowdans				
Garages				
Shops				
Industries/factories				
Market				
Restaurants/ hotels				
Petrol station				
Poultry farm				
Agro-industry				
Other:				
Reasons:				

7c. Estimate of number of workers:

Workers in	2003	1998	1993
Brick kilns			

Mining		
Industries/factories		
Commuters		

8.a.What are the dominant forms of transport for agricultural goods to the city (in %):

	Bus	Tractor	Tempo	Bullock card
2003				
1998				
1993				

8b. What are the dominant forms of transport for people to the city (in %):

	Bus	Tractor	Tempo	Jeep
2003				
1998				
1993				

10.a Crop wise land use in acres: 2003-1999

Crops	Mungary 2003-02	Hingary 2003-02	Mungary 2002-01	Hingary 2002-01	Mungary 2001- 1999	Hingary 2001-1999	Mungary 1999-98	Hingary 1999-98	Irrigate
Cereals:									
Jowar									
Paddy									
Ragi									
Bajera									
Navane									
Wheat									
Sawi									
Maize									
Pulses:									
Bengal gram									
Green gram									
Horse gram									
Black gram									
Tur									
Alesandi									
Gurellu									
Avare									
Oilseeds:									
Sunflower									
Groundnut									
Castor									
Sesamum									
Soyabean									
Safflower									
Linseed									
Non-food									
crops:									
Cotton									
Tobacco									
Mulberry									
Vegetables:									
Chillies									

Onion					
Potato					
Garlic					
Peas					
Beans					
Ladyfinger					
Cucumber					
Brinjal					
Cauliflower					
Tomato					
Spices:					
Coriander					
Cardamom					
Horticul-					
ture:					
Mango					
Sapotha					
Guave					
Banana					
Betalnut					
Coconut					
Pome-					
grenade					
Papaya					
Lemon					
Teak					
Nime					
Floriculture					
Rose					
Jasmin					
Total:					

10b. What kind of crops have been experimented with in the village in the past?

10c. What are the reasons for the changes in cropping patterns?

Appendix E: Landowners Land Use Questionnaire

Landowners Land Use Questionnaire

Name:

Date:

Village:

1.a Landownership:

	Amount of land (acres)			
Big (>10)				
>4 ha				
Medium (5-10)				
2-4 ha				
Small (0-5)				
0-2 ha				

1b.Type of soil:

1c. Location of land relative to the village/ roadside in km:

2a.Do you lease any land (this year/ before), tyep of arrangement:

2b.What crops were grown before you leased it?

3a.Did you sell/ purchase any land? If yes, to who (private/government):

3b.Is ther any non-agricultural land use on your land (brick kilns/ residential)?

4.a Do you own a tractor/ since when and do you hire out a tractor?

4b.How many animals do you own?

4c.Was there an increase or decrease in the number of animals the last 5 years Reasons: (lack of fodder/drought/ financial problems/mechanization) Do you do any diary production?

5a.How long have you been farming here?

5b. What level of education do you have?

5c. How many family members share the income from this...acres of land?

5d.Your family is: nuclear/ joint?

Members	Age	Main activity	In/outside village

5.e Mmeber engaged in different activities:

5f. Is the income of your family now more or less than 5 years back?

0a.110w muc	balliow inden acres do you have under inigation?						
Irrigation	Acres	Sources					
Present							
1998							
1993							
<1 TC 1	1	1.10					

6a.How much acres do you have under irrigation?

6b. If, no, do you bring water to the field?

6c If, yes, since when and what source (borewell)?

6d.Irrigation type (drip/sprinkler/tube):

7a.How many acres are under cultivation and under which crops in 2003

Crops	Mix cropping	Acres	Season	Irrigated
1				
2				
3				
4				
5				
6				
7				

7b. How many acres are under cultivation and under which crops in 1998

Crops	Mix cropping	Acres	Season	Irrigated
1				
2				
3				
4				
5				
6				
7				

7c Did you experiment with any crops?

8 Plantation/floriculture/vegetables 8a. Do you grow any plantation crops (*chiku/ mao/ perla*)? Number of trees:

Since when:

Reasons for plantation crops (less labour/ good investment/ demand.....):

How do you mix your crops?

How did you get the idea for plantation crops (neighbours/ agricultural college/ others..):

8b.Do you grown any flowers?

Since when:

Reasons for flowers:

How did you get the idea for flowers:

8c.What kind of vegetables do you grow and on how many acres?

8d. Where do you sell your plantation crops/ flowers/ vegetables?

9a Which of the fieldcrops are for selling/ home consumption?

9b.Where do you sell these crops?

9c. Do you store any harvest?

9d. On what basis do you choose crops for next year (marketprices/ suitable soil/ tradition/

other)?

10a. Do you have any permanent labourers (number)?

10b. Do you have any daily wagers?

10c. Is there an increase/ decrease in the number of labourers you have used the last 5 years $% \left(1-\frac{1}{2}\right) =0$

(reasons)?

10c.Do you have any problem with getting labourers?

11. Have you any future plans for agriculture or non-agricultural activities for you and your

family (borewell, plantation crops/ off-farm employment...)?