



INDO-GERMAN DEVELOPMENT COOPERATION PROJECT

Making best use of *patta* land A story of Ratnajoy Reang

Shri Ratnajoy Reang, 48, of Rangacherra para of Shikaribari ADC village under Ambassa RD Block of Dhalai district is one of the early champions who have shown that erstwhile *jhum* fields allotted under STOTFD (RFR) Act can be sustainably managed. By doing so, the farmers need not to undertake the rigorous process of *jhum* again for their livelihood. Ratnajoy, belonging to primitive Reang tribe, was practising *jhum* for generations. With the allotment of land under RFR Act, 2006 in the year 2009, and subsequent technical and financial support from IGDC project, Ratnajoy today is not only a proud owner of the land that his forefathers were cultivating on but also demonstrated that how traditional wisdom combined with scientific knowledge can provide wonderful solutions to the land-based livelihood.

An area of 1 ha *patta* land that includes both *tilla* (upland) and *lunga* (valley land) was allotted to Mr. Ratnajoy Reang in the beginning of the year 2009 (Plot No: 239/p, Khatien No. 3/1). After demarcation of the land by the Revenue Department officials, he was trained by the IGDC project personnel how to determine the location of the land using a GPS. He says “the GPS reading of my land is 23°54Rs. 084 N and 91°54Rs. 474 E”.

The project personnel explained Ratnajoy the principles and methods of treating *patta* land through 3-tier plantation model. He was trained on systematic planning for plantation and other required knowledge such as planting and soil and moisture conservation skills. He was convinced that management of *patta* land following this approach would enhance his income and he needs not shift his cultivation land for *jhum* every year as he has been doing earlier. He says, “Agricultural and horticultural crops such as Turmeric, Ginger, vegetables and Banana representing ground and middle canopy layers provided me cash income during the first year of the project itself. The tree layer would provide me income from 6th year onwards”. He planted the following crops in the month of May, 2012 and onwards:



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Annual crops in the ground layer are: Turmeric, Ginger, Maize, Rice, Pineapple, Cucumber, Pigeon pea (Arhar), Elephant yam (Bager duga), Chilli, Chinar, Pumpkin, Ladies' finger, Cowpea, Lab lab bean, Til. Annual/perennial fruit Crops in the middle layer are: Banana, Papaya, Sugarcane, Bamboo, Lemon, Orange. Perennial Crops in the top canopy are: Mango, Agar, Jackfruit and Areca nut.

The project provided him with 20 seedlings each of Mango, Agar and Lemon, 50 seedlings each of Orange and Jackfruit, and seedlings of 100 Bamboo, 200 Banana and 500 Pineapple. In addition, the project provided 50 kg of Ginger rhizome, 80 kg of Turmeric rhizome and supported cultivation of *jhum* vegetable crops.

Mr. Reang divided his plot into 5 different sub-plots (Figure 1). The description of each sub-plot is as follows:

1st sub-plot: In the first sub-plot he has tried to improve upon the traditional *jhum* by planting Mango (Amrapali variety) along with *Jhum* crops such as Rice, Maize, Cucumber, Arhar, Bager duga, Chilli, Chinar and Pumpkin. He has allowed the existing big trees in this plot, the canopy of which covers about 40% of the plot.

2nd sub-plot: In the 2nd sub-plot he has planted Banana, Areca nut, Ginger, Turmeric and some vegetable crops such as Gourd, Cucumber and Elephant yam. He has planted both Turmeric and Ginger in raised beds adequately taking care of the Soil and moisture conservation measures. Mulching for moisture conservation using Thatch grass was also practised.

3rd sub-plot: The third sub-plot is a *lunga* land and he has used it for cultivation of wet land Paddy.

4th sub-plot: The fourth sub-plot is at the foot hill where he has constructed a check dam for storing water for irrigation and Pisciculture. On the bank of the check dam he has planted about 3000 Pineapple plants. This sub-plot was mainly supported through convergence programme of IGDC, and RD department supported financially for these two activities.

5th sub-plot: This sub-plot is used as a Bamboo plantation and other horticultural crops such as lemon and orange.



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Ratnajoy says.....“Before undertaking plantation under IGDC project I was a jhum cultivator. We used to shift our plot from one place to the other as the land used to lose fertility after 2nd year of cropping. But after patta land allotment we shall use our land every year. The techniques that I learnt from the IGDC Project helped me in cultivating the land continuously without losing its fertility. I am using my entire patta land following three tier model where I got income from 1st year itself. I am also planting all the traditional crop varieties which were earlier planted on jhum field. By cultivating a large variety of horticultural and spice species, I have been able to enhance my income substantially.

Nowadays, I spend my whole day in this patta land to develop it. I request IGDC project to kindly provide me materials for constructing a small farm house in the land itself, which is very far from my house, so that I can improve the land further.”

Income from the patta land during the first year:

Sl. No.	Already sold			In the field	
	Species	Quantity	Amount in Rs.	No/kg	Estimated cost (Rs.)
1	Banana (No. of Bunches)	30	@ 50/chari = Rs.1500	50	1,500
2	Pineapple (No.)	1000	@ 10/pineapple = Rs. 10,000/-	500	5,000
3	Maize (No.)	500	@ Rs. 10/4 nos = Rs. 1,250	100	250
4	Elephant yam (kg)	200	@ Rs. 20/kg = Rs.4000	100	2,000
5	Turmeric (kg)	320	@ Rs. 40/kg = Rs.12800	300	12,000
6	Ginger (kg)	200	@ Rs. 45/kg = Rs. 9,000	250	11,250
7	Rice (Kn)	50	For self consumption		
8	Chilli (kg)	2	@ Rs.100/kg=Rs. 200	8	800
9	Chinar (No.)	10	@ Rs.10/No. =100	-	-

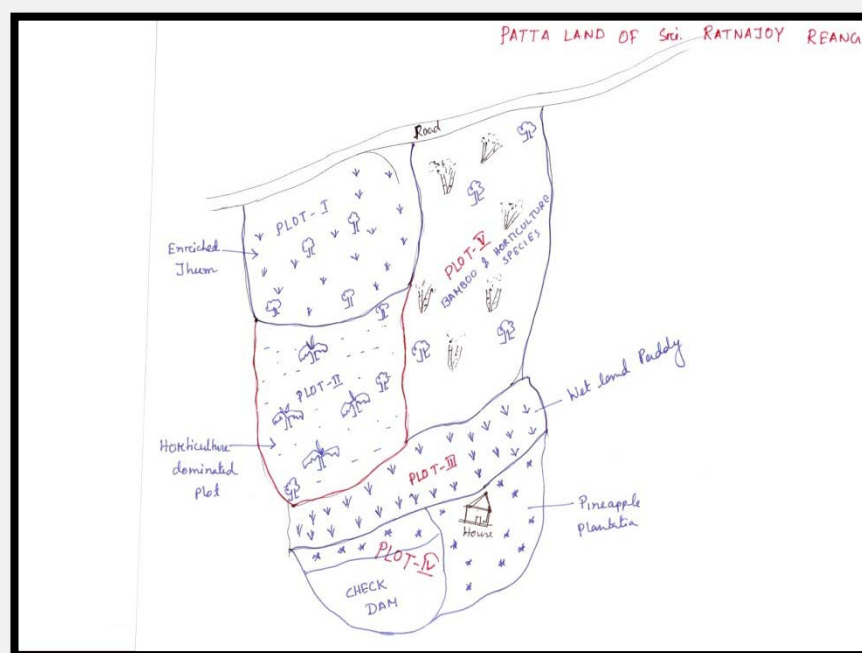


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Sl. No.	Already sold			In the field	
	Species	Quantity	Amount in Rs.	No/kg	Estimated cost (Rs.)
10	Lady finger (kg)	25	@ Rs. 20/kg. = 500	20	400
11	Til (Kg)	-	For self consumption	50	4,000
12	Lab lab bean (Kg)	20	For self consumption	50	1,000
13	Check dam	-	Rs. 2,500/per year	-	Rs. 2,500/per year
Total			Rs. 42,250/-		Rs. 40,900/-

In total, during the past one year period, Ratnajoy has earned Rs. 42,250/-out of this 1 ha land, and crops worth Rs. 40,900 /- are ready for sale in near future. This is in addition to the benefits from the perennial crops/plants that would be derived in future days to come. The income from this land has ensured Ratnajoy to send his daughter to the school regularly.

Fig:1: Hand sketch map of patta land of Shri. Ratnajoy Reang





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Fig:2: Pictorial view of plot II



Fig:3: Pictorial view of plot I



Fig:4: Pictorial view of Soil and moisture conservation measure

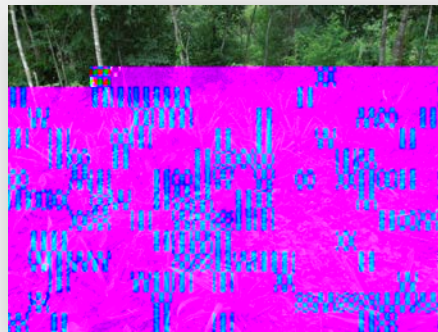


Fig:4: Pictorial view of Plot IV