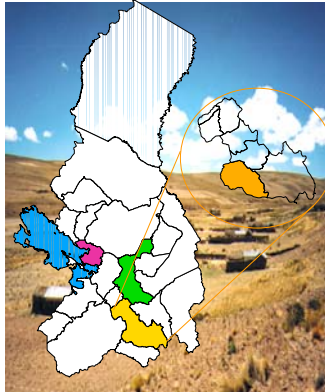
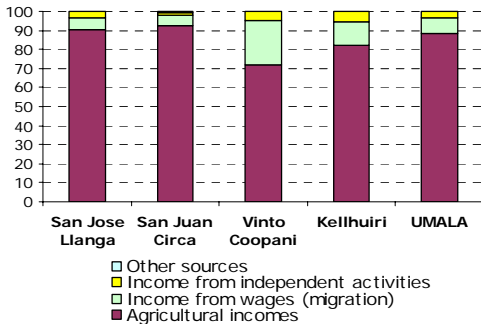


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Household income levels in peasant communities in UMALA are amongst the lowest in Bolivia. On average, annual per-capita income in Umala is US\$ 470,00 which is less than half the national average per-capita income in Bolivia (US\$ 1153,00). However, income levels in Umala are twice higher than the average in Ancoraimes, and therefore families in Umala have higher living standards

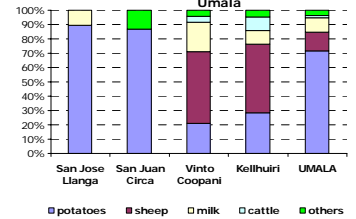
Temporary migration and participation in waged labor markets is a very important source of income diversification. On average, about 10% of cash income comes from wages derived from temporary migration and engagement in paid employment outside their own communities (Figure No 1). For Vinto Copani, migration is even more important: about 25% of cash income comes from wages. While temporary migration for wages is important, it should be noted that agricultural production remains as the most important economic activity for most of the communities in the region. More so than in the case of Ancoraimes.

Figure 1 Income from commercialization of agricultural products is largely the most important source of cash



The most important crop commercialized in Umala is potatoes (Figure No2). Specialization in the production and commercialization of potatoes is the main economic characteristic of two communities of our study: San José Llanga and San Juan Circa. For both, 90% of cashed income comes from the sale of potatoes. This is not the case of Vinto Copani and Kellhuiri, where the sale of animals (sheep and cattle) is the most important source of cash income.

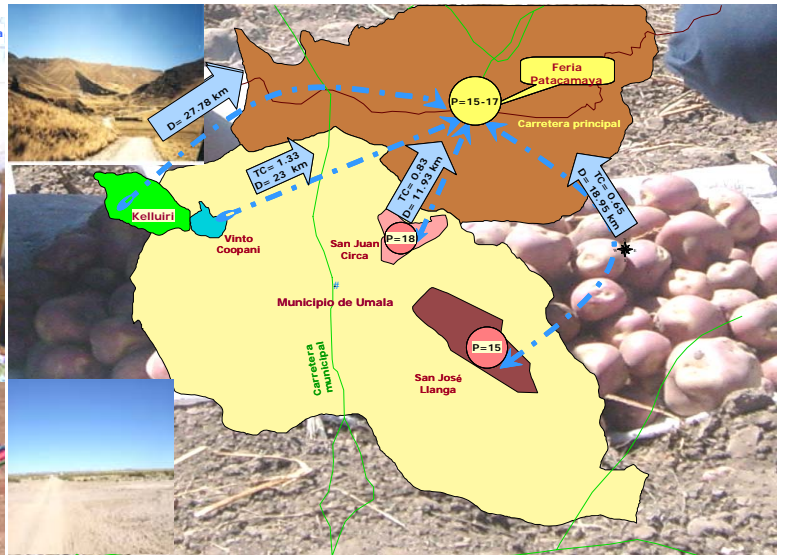
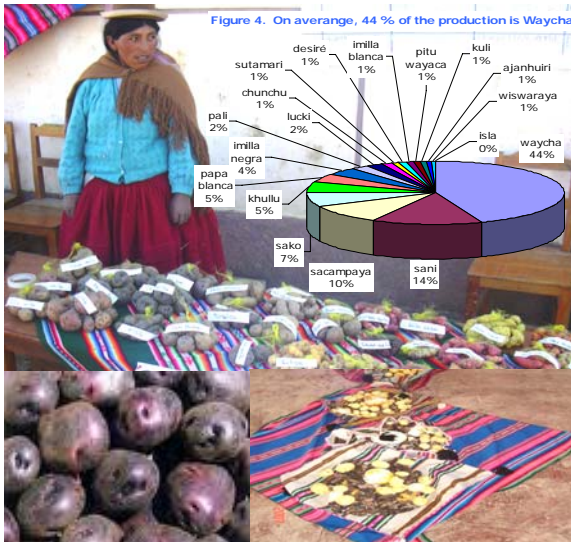
Figure 2: Potato is the most important cash crop for households in Umala



### How markets function: characteristics and transaction costs

In Umala Potatoes are the most commercialized crop. Potatoes are largely commercialized in a weekly Sunday feria of Patacamaya, a rural town that has become a center for commercialization and trade. The two communities that specialized in potato production (San José Llanga and San Juan Circa) also sell their potatoes in their own communities to middle-men or "rescatistas" (Figure No 3). As expected, prices tend to be higher when potatoes are sold in the Patacamaya market rather than in the communities where they are produced. Transportation costs reflect the distance between each community where potatoes are produced and the Patacamaya market

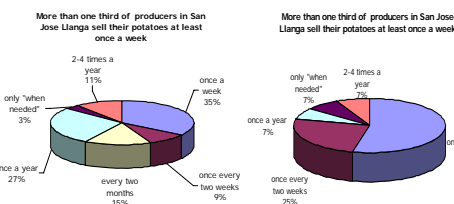
Umala is a region of high biodiversity: There are about 150 local varieties of potatoes that are currently produced. Yet, production of local varieties is diminishing (Figure No4)



### How often is commercialization carried out?

For peasant communities in Umala potatoes can be characterized as the most important "cash crop." One way to assess this is by identifying the frequency in which potatoes are commercialized (see Figure No 5). When asked local potato producers in San Juan and San Jose how often commercialization is carried out, between 30 and 50% of them responded that potatoes were commercialized at least once a week.

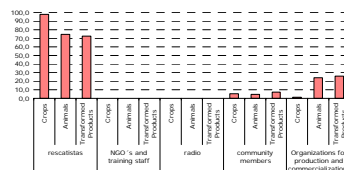
Figure No 5: Most commercialization is carried out weekly



### How to access market related information?

For communities in Umala, middle-men are largely the only source of price related information for the sale of crops, animals and transformed products. (Figure No 6)

Rescatistas are the most important source of price-related information



### Are market shifts a threat for local producers?

(table with perceptions results) Shifts in market prices are not perceived as a major risk, and thus are ranked as less significant than climate related changes such as drought and hail (Figure No 7)

Figure 7. Risk perceptions on climate and market changes

	San José Llanga	San Juan Circa	Vinto Coopani	Kellhuiri	UMALA
Hail	3,9	3,8	4,2	4,3	4,0
Frost	4,3	4,5	4,7	4,3	4,4
Drought	4,4	4,2	3,8	4,3	4,3
Pests	3,2	3,1	3,5	3,9	3,3
Lower prices on the market	3,6	3,7	3,6	3,6	3,6

1 = no risk  
5 = highly risky

### CONCLUSIONS

Reliance on rescatistas for market related information shows the high degree of dependence of local producers on middle-men and other intermediaries of the commercialization chain. Reaching markets with higher prices involves more than transportation costs and time spent in traveling. Transaction costs for reaching distant markets includes the need to cover living expenses and the possibility to access housing through community networks and relatives. Producers would also need to commercialize greater quantities in order to reduce transportation and other transaction costs. The fact that shifts in market prices are not perceived as a major source of risk does not reflect a secondary role for markets. It could reflect various other factors including the fact that commercialization takes place as a result of the need to access cash income. Further research is needed to assess the volatility on prices for commercial crops and the extent in which changes in prices determines production and marketing strategies.