

## E. INFORME

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**Título del Proyecto: Patacancha Trout Farm**

**Institución: Alma Foundation, Country Walkers.**

**Monto de apoyo:**

**Periodo del reporte: 11/13/13**

### 1. Información del apoyo

#### I. Objetivos del proyecto.

Improve the Nutrition of the children from the Primary Educational Institute I.E. 50618 Patacancha by the farming of (Salmonids) Trout fish in installations of the primary school, to provide the children from the primary school protein meals made of trout fish three times a week to improve their academic performance.

#### II. Resultados logrados a la fecha.

The results up to date can be divided into 3 main fields:

- **Reproduction:** In our last evaluation we had mentioned that the incubator was up and working with trout eggs that were laid and waiting to hatch in the following months. This has been possible, although with many difficulties in the way, the trout farm has hatched close to 7 thousand eggs, those eggs are now fish larva and about to be moved to the main fish tank pools in the following month. It is a huge success to the project as we are talking about 7 thousand fully reproductive trout that will be Patacanch'a first breed, and one that will guarantee the sustainability of the following generations of trout.
- **Food Production:** In our precious evaluation one of a biggest accomplishments obtained was the fact that the trout farm had now gotten fully equipped with a mill and a pellet maker which would mean that the trout farm could now produce its own trout food, nevertheless ,a big part of the challenge was still up to come: MAKING THE FOOD. With effort of our trout farm manager "Leonardo Mamani" and our trout farm instructor "David Zambrano", we began a research duty to find out how the process of trout food making would happen and

not only that, but to actually take it up to the altitudes of Patacancha and adapt it a little bit to the long travel of incomes to the community and the general environmental facts that this community presents. It all went well and now Patcancha officially sustains the fish of their farm with its own food, being the first trout farm in the whole region to actually be able to pull this off. We make all sorts of trout food for all sorts of ages. Except one : Initial Food, which requires a different type of pellet maker machine. IT is a Huge accomplishment and a historic fact that this trout farm that runs for the children of the community, now not only attends a social cause (a very important one) but also sustains itself with its very own trout food.

- **Lunches:** It was a known fact that the trout farm encountered a few problems in winter of this year due to some mortality in the fish as well as miss calculation on quantities, that made for a small period of time with outsized fish that was not big enough to be eaten. This however has been now fixed, and the children are having two lunches a week made out of trout, cooked by the mother and will increase to 3 lunches a week in the following month as the trout fish grow.

### III. ANALISIS DE INDICADORES.

Aspect	Indicator	Has it been accomplished in this peroid?
Heigth and Weight	Increases.	TO be seen in the final evaluation.
Grades of children in all the school curriculum	Increases.	To be analized in the final evaluation.
Production of "Alevinos" Trout fish.	Increase.	Yes, close to 7 thousand.
PRoduction of trout food.	Reduction of costs in the acquisition of trout food.	Yes, we have figured it out.
Trout fish external sales.	Income for the trout farm.	No, fish have been lacking for lunches, so no trout fish sold.

### IV. ANALISIS DE RIESGOS.

Risk	Probabillity	Impact	Has it happened?	How did we solve this problema?
CLimate, Exrteme rains and snow falls.	Low	Low	YES	We are now in the process of building filter for the raiy season to clean up the wáter, and also we have been able to install the incubator fed by spring wáter untill the eggs

				hatch to insure clean wáter for th eggs.
Freezings	Low	Low	YES	Again we have made sure that the most fragile trout stage was fed by srping wáter.
River slides and river coming out of its course.	Low	Low	NO	-
Trout stealing	Low	Medium	NO	It has happened in the past, but not in the peroid of this evaluation. The conformation of the trout comittee with help in this apect.
Lack of parents participation in the trout farm cooking.	Medium	High	NO	-
Death of trout fish.	Low	High	YES	We solved this through more reasearch and also by learning along side with the advices and hiring of our trout farm instructor. The index of mortallity of the trout eggs has been 50 % this year but we expect it to go severely down in the followin year.

**V. Participación de los beneficiarios/as en el proyecto**

The participation of the beneficiaries in the project has been quite constant since our last evaluation, as mentioned before, the mother of the children from the school help cook the lunches and sign each time they cook a lunch for their children.

On the other hand, the community along side with the Alma Foundation have agreed on conforming a "Trout farm committee " conformed by 4 to 5 members of the community and also parents of the school to be able to slowly hand this project of to the community and not only this but to also be able to have a bigger control and administration team in the trout farm. Up to own there are 6 candidates that are about ready to conform the trout farm committee and will most likely sign a

“convenio” (Agreement) with the Alma Foundation and the parents association of Patacancha in the following month for this organization to be officially recognized.

### III. Resultados no previstos

The unexpected results have been a big part of the learning process of the period of this last evaluation, at moments we have encountered very big problems in the hatching of the eggs.

There has been a fairly high index of mortality of the eggs, close to 50% of the eggs and fish larva died because of different factors that we (by we I mean our trout farm manager, and even our trout farm instructor) have learned. When the eggs hatched and turned into fish larva, a problem started occurring, first off we had problems with birds and even mice coming and eating the fish larva off the pools, which was quickly solved and was now major problem. Then we encountered an even bigger problem, the death index started raising and even with the constant visits of our trout farm instructor, the problem found no explanation, many of the fish Larva were dyeing slowly and it only lead us to take a quick decision to save them, our closest thought was that there was a problem with the water. This would make sence because the water that fed the incubator and the fish Larva was not the usual water that we use for the main pools of the fish farm (which comes from a big river). This part of the trout farm was fed by a water spring, this due to two main reasons:

- 1) Spring water tends to be much warmer than river water which makes for quicker development of the trout eggs.
- 2) The river water tends to be a little more dirty than spring water, which also replicates on the development of the trout eggs.

It was not known by any of us that this problem was going to occur, but we had to take a risk and change the fish Larva to the natural river water in order to see what would happen. IT WORKED! The fish larva were developing (and still are) healthy. It wasn't until our trout farm instructor “David” did a little more research and found out that the spring water has considrerably lower oxygenation levels than river water and being this a spring that is at an altitude of more the 4000 meters, we soon got to the conclusion that the water was not oxygenated enough for the Larva. Nevertheless, we did save a fair amount of fish and for next year we now know the process ad are expecting the death index to go down from 50% to 10 or 20%.

Some other important facts that are necessary to consider are that :

- 1) The death index of the trout eggs also was due to the small size of these. This is mainly caused because of the female trout laying their first eggs. The eggs next year are expected to be larger and therefore stronger and quicker to develop and hatch.
- 2) It was a learning experience for all of us, and the mistakes we did, will certainly not occur in the next egg lay.

It is also important to denote that we have had two large donations of "Alevinos" small trout fish, from the Municipality of Ollantaytambo and the Municipality of Urubamba, both of an approximate of 5 thousand small, non reproductive fish. This mainly to the over heard success that this project is being known for and the cause that has had some supporters along the way.

## **2. Breve resumen de la ejecución del proyecto hasta la fecha.**

**The project has now reached a whole new level of what we call sustainability. Not only because of the fact that the trout farm now manages its own food, but because it is now a trout farm that has been able to hatch eggs successfully and begin on a whole new level of favorable quantities of fish to feed the children next year.**

**It is a well defined stage that will also bring the "trout committee" have been dreaming of, and with all this hype going on about the close to 17 thousand fish being there, the interest in the community for the success of this project is now picking up more and more. This without of course paying attention to the importance that there to make it certain that the children know that this is their own trout farm, and that all of this work is for them.**

**We have been encountering sever problems that could put at stake the sustainability of the project, but these have been solved as mentioned before successfully, and have been an important lesson learned, for the trout farm to be up and running on a much more professional pace.**

**The trout food development is no longer such a hassle, as all the dry material have been sent up to the community to store them, this way, we avoid hassle and unnecessary costs of transportation, making this process no more a challenge but more like a routine in the trout farm.**

**The "trout far committee" will be of great importance to this project as it will help our trout food manager "Leonardo" to overcome certain difficulties of the job, and will give him and**

**the children support in handling the daily chores. IT will also be important to ensure that the community knows and respects the fact that this committee is fully in charge of this project and that if anything happens they will all be defending the cause of this project.**

### **3. Beneficiarios hasta la fecha.**

The beneficiaries are :

Infants: 20 , 12 girls and 8 boys. These infants attend to the initial part of the school program and have been fed trout throughout the program.

Children from the school: 134, 69 girls and 65 boys. These children belong to the primary module of the school and have also been fed trout meals throughout the program.

Community: the community in general has been benefited by having their children in a better nutrition situation and by also being able to have fresh trout available for them to buy and cook in their houses.

### **4. Lecciones aprendidas**

Describir las lecciones aprendidas por la organización ejecutora y las(os) beneficiarios/as (donde pueda aplicarse).

The lessons learned in this period of time have been probably the most difficult aspect of the project so far.

As far as laying eggs of trout and successfully hatching them to healthy fish, we already knew that this was a science, but, we never thought it would be such a challenge, Especially considering the fact that many factors influence the trout eggs more so in the altitudes of Patacancha. Now that we learned all of this , we now are more confident that next time the trout fish lay eggs (from May to August) of next year, the hatching and raising of these eggs will be a lot easier.

As far as lunches, this year given the fact that we theoretically ran out of eatable fish in some months of winter, we learned the importance of saving fish at times instead of selling them, this however will be

much much simpler next year and the months following these informes, mainly because the trout farm has a much larger quantity of fish than it has ever had before.

We now know that perhaps for next year at the pace that the trout raising has been going, we will probably have to think about more infrastructure for trout fish as if the death index of trout eggs goes down next year, the quantities of trout will be over the top of the capacity of the actual infrastructure, which will also guarantee the meals for the children at an even higher standard.

## 5. Otros.

## 6. Adjuntar fotografías (los más relevantes)



**The Trout Larva fish larva, Patancha's very own new borns**



**Leonardo Mamani, our trout farm administrator over looks happily the fish larva about to be transferred into the pools.**



**The children of the Patacancha Primary School looking at what they proudly can call “Their trout Farm”**



**AVELINO HUAMAN POMA , Avelino is a 6 year old Patacancha native, over many times that I have visited Patacancha, I have seen him wandering around the trout farm, quite but happy, just watching how the trout move and swim. I have spoken with him on some occasions, and asked him, what do you want to be when you grow up? He quickly answered I want to have my own trout Farm.**

**Avelino is always quick to show up with his plate in the trout lunch days at the farm pools, as if he thinks that the trout will be cooked that instant for him, before his class mates. He likes fried trout more than fish soup or even steam cooked fish.**

**Preparado por:**

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*Firma:*

*Fecha: 17/11/13*