

## **Project Title**

The construction of a reinforced concrete bridge over the Menouet River in the village of Foreke-Dschang of the West Province of Cameroon

## **Project Background**

The people of FOTETSA, FOSSONG-WENTCHENG, FONGO-NDENG and FOREKE-DSCHANG (F4) are farmers and animal raisers who make their living from selling their produce and animals in the markets of Dschang and Santchou. Unfortunately, the transporting of these goods is hindered by crossing the MENOUE River at the level of NZIE to LITIEU. Therefore, to reach the market, the community must travel an extra 17 kilometers out of their way. The amount of money spent on traveling these extra kilometers makes it nearly impossible to earn any profit from produce and livestock sales.

## **Project Goal**

The solution is to build a reinforced concrete bridge over the Menouet River so that the villages will have direct access to the main road leading to the markets of Dschang and Santchou (Annex A). People regularly build bamboo bridges in order to cross. However, the bamboo bridges are frequently washed away in the heavy storms of the rainy season leaving a population of 34,000 people completely isolated and making it impossible to transport goods. The construction of a solid, cement bridge is necessary in order for the communities to develop and combat their recent state of impoverishment.

The bridge will facilitate in the populations being able to produce and sell more. There are also sand and rock quarries that cannot presently be exploited because of the lack of access to the market. The bridge will bring these isolated villages closer to the city of Dschang thereby reducing transportation costs and accelerating agricultural production and the exploitation of natural resources (sand and rock quarries).

It is for this reason that the population raised 3.000.000 FCFA to begin the construction of a bridge in the 1990's. Unfortunately, the bridge was not well planned and the financial resources needed to complete it were not available. We have learned from the failure of those before us. Now, we are lucky to have the advice of engineering experts from the village. With their advice along with the project management skills of our committee, the population would like to restart the construction of the bridge and see to its completion once and for all.

## **Beneficiaries**

The 34,000 residents of FOTETSA, FOSSONG-WENTCHENG, FONGO-NDENG and FOREKE-DSCHANG (F4) will benefit from the new market access now inaccessible.

## **Expected Outputs**

Using statistics from the Department of Agriculture in Dschang, we anticipate that with the bridge in place, the community will save 27.100.000 FCFA in one year on transporting their goods to the market in Dschang (Table 1). This amount of savings doesn't even include the amount of money that will be earned through the exploitation of the rock and sand quarries. This amount will nearly cover the cost of the bridge in the first year. The years that follow will amount in even larger revenues.

**Table 1**

<b>Economic Impact of the Bridge</b>						
		Economic Situation Without the Bridge		Economic Situation With the Bridge		
Transportation Activities	Amount/ Year	Unit Cost (FCFA)	Total Cost (FCFA)	Unit Cost (FCFA)	Total Cost (FCFA)	Benefit (FCFA)
Persons	20.000	800	16.000.000	500	10.000.000	6.000.000
Goods	Amount/ Year (in tons)	Total Cost/Ton (FCFA)	Total Cost (FCFA)	Unit Cost (FCFA)	Total Cost (FCFA)	Benefit (FCFA)
Coffee	400	10.000	4.000.000	7.000	2.800.000	1.200.000
Legumes	1.700	18.000	30.600.000	10.000	17.000.000	13.600.000
Vivres Fraises	2.100	10.000	21.000.000	7.000	14.700.000	6.300.000
Le Total (FCFA)			71.600.000		44.500.000	<b>27.100.000</b>

Source: La Délégation Départementale d'Agriculture de Dschang

Table 1 details the economic impact that the bridge will have on the four village groupings. Twenty thousand people travel from the villages of F4 to Dschang every year. Without a way to cross the Menouet River, people must pay 800 FCFA per trip. Therefore, the villagers spend a total of 16.000.000 FCFA per person per year traveling from village to the town of Dschang. With the bridge, the cost per person will be reduced to 300 FCFA seeing that the total cost per year is diminished to 10.000.000 FCFA. Residents of the villages will, therefore, save 6.000.000 FCFA with the bridge in terms of travel.

In terms of transportation of goods, without the bridge, residents spend a total of 4.000.000 FCFA per year on the transport of coffee. With the bridge, the total cost of transporting coffee would be about half of that. Residents spend 2.800.000 FCFA total on the transport of coffee per year, saving 1.200.000 FCFA per year. The villages spend a total of 30.600.000 FCFA per year in carrying *legumes* from the village to the town without the bridge. With the bridge, people will spend 17.000.000 FCFA per year, saving 13.600.000 FCFA per year on the transport of vegetables. Finally, without the bridge we spend a total of 21.000.000 FCFA per year. With the bridge, they will spend 14.700.000 FCFA per year, the saving 6.300.000 FCFA per year.

Ultimately, without the bridge, the villages are spending a total of 71.600.000 FCFA every year on the travel and transporting of goods from village to the town of Dschang. With the bridge, the total cost of transportation will be reduced to 44.500.000 FCFA per year, seeing that the villages save a total of 27.100.000 FCFA per year.

## **Project Activities**

So far, the population has in prepared for Phase I of the bridge construction:

- Leveled the ground
- Completed technical studies
- Drawn up detailed plans of the bridge
- Cleared out the roads to the site
- Organized and executed fundraising

Phase 1 begins in December. This phase consists of the preparation of the site and the bridge foundation. Phase 1 will be completed by March 2008.

Phase 2 begins in March. At this phase, we will construct the support beams and raise the walls. This phase's completion is projected for April 2008.

Phase 3 begins in June. During this phase we will construct the platform of the bridge. This phase will be completed by July 2008.

Phase 4 begins in August 2008. This phase consists of making the bridge traversable by leveling out the road to match the bridge height.

Please refer to Annex B for our project timeline.

## **Overall Cost of Project**

The total cost of the bridge is 28,022,500 CFA francs. Please refer to our budget for details.

## **Amount Requested from Breaking Ground**

The total amount requested of Breaking Ground is 2.300.000 FCFA. This money will be used to help buy the cement and iron needed for the foundation of the bridge.

## **Beneficiary Contribution**

The community will contribute 12.781.860 FCFA. This contribution exists at all phases of the project and can be found in our budget.

## **Other Donors Approached**

<b>NAME OF DONOR</b>	<b>AMOUNT REQUESTED (FCFA)</b>
Peace Corps Volunteers Lee Allen & Amber Lantz	3.985.500
British High Commission	4.364.070
U.S. Embassy	4.590.240

## **Budget**

	<b>Breakdown</b>	<b>Breaking Ground</b>	<b>Peace Corps Volunteers</b>	<b>British High Comission</b>	<b>US Embassy</b>	<b>Community</b>	<b>Total</b>
<b>Phase I:</b> Site preparation and bridge foundation	Standard work	—	—	—	—	600.000	600.000
	Clearing of site	—	—	—	—	89.000	89.000
	Groundbreaking	—	—	—	—	700.000	700.000
	Foundation	—	585.000	—	—	195.000	780.000
	Cement and iron for the foundation	2.300.000	3.400.500	—	—	2.000.500	7.701.000
	<b>Phase I Total</b>	<b>2.300.000</b>	<b>3.985.500</b>	<b>—</b>	<b>—</b>	<b>3.584.500</b>	<b>9.870.000</b>
<b>Phase II:</b> Construction of support beams and raising of walls	Cement for the elevation of the walls and abutments	—	—	4.364.900	—	4.997.100	9.362.000
	Barbican	—	—	—	—	70.500	70.500
	<b>Phase II Total</b>	<b>—</b>	<b>—</b>	<b>4.364.900</b>	<b>—</b>	<b>5.067.600</b>	<b>9.432.500</b>
<b>Phase III:</b> The platform of the bridge	IPE 360 ou 400	—	—	—	3.400.000	—	3.400.000
	Concrete for the deck	—	—	—	675.240	1.891.760	2.567.000
	Metal framework	—	—	—	515.000	213000	728.000
	<b>Phase III Total</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>4.590.240</b>	<b>2.104.760</b>	<b>6.695.000</b>
<b>Phase IV:</b> Forming access to the bridge	Access to the bridge	—	—	—	—	2025000	2.025.000
	<b>Phase IV Total</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>2.025.000</b>	<b>2.025.000</b>
<b>TOTAL GENERAL</b>		<b>2.300.000</b>	<b>3.985.500</b>	<b>4.364.900</b>	<b>4.590.240</b>	<b>12.781.860</b>	<b>28.022.500</b>