

## Block-chain Relief Fund Network

**Ratq Science & Tech** 

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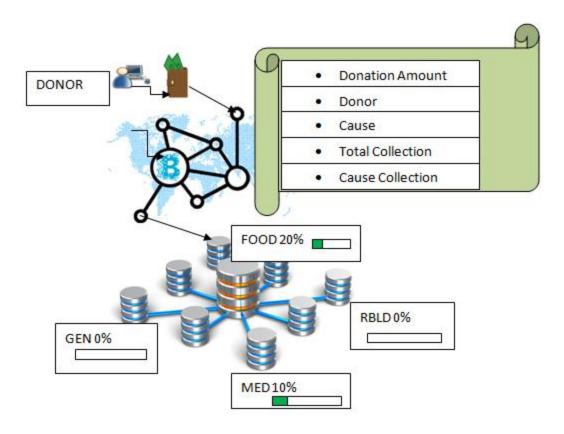


Figure 1: System Architecture

## **System Overview:**

## — Phase 1:

- 1. NGOs will list the sub-funds dedicated to specific cause.
- 2. Each sub-fund will list the estimated fund required.

3. Donor will donate to for particular cause using block chain wallet.

```
1 {
2    "$class": "org.example.basic.SampleTransaction",
3    "donor": "resource:org.example.basic.SampleParticipant#donorl
4    "org": "resource:org.example.basic.SampleParticipant#orgl",
5    "cause": "resource:org.example.basic.FundForCause#RBLD",
6    "amount":100
7 }
```

4. Transaction records will be generated.

```
Historian Record

Transaction Events (1)
```

```
1 {
2    "$class": "org.example.basic.SampleTransaction",
3    "donor": "resource:org.example.basic.SampleParticipant#donor1"
4    "org": "resource:org.example.basic.SampleParticipant#org1",
5    "cause": "resource:org.example.basic.FundForCause#RBLD",
6    "amount": 100,
7    "transactionId": "67c29fc7-ea10-414b-b2cb-29b6892d13e0",
8    "timestamp": "2018-09-28T12:49:12.854Z"
9 }
```

- 5. Record should show:
  - Amount of money transferred,
  - Name of donor and organization
  - Donor's balance after transaction

- Total collection of the organization after transaction.
- Total collection for the particular cause

```
"$class": "org.example.basic.SampleEvent",
"donor": "resource:org.example.basic.SampleParticipant#donorl",
"receiver": "resource:org.example.basic.SampleParticipant#orgl",
"fund": "resource:org.example.basic.SampleAsset#fund01",
"wallet": "resource:org.example.basic.SampleAsset#wallet01",
"donorName": "Ajoy Sen",
"orgName": "ABC Org",
"txnAmnt": 100,
"donorBalance": 2300,
"rcvrBalance": 1200,
```

6. Funds, Sub-Funds, Wallets are updated accordingly.

```
7  "donorName": "Ajoy Sen",
8  "orgName": "ABC Org",
9  "txnAmnt": 100,
10  "donorBalance": 2300,
11  "rcvrBalance": 1200,
12  "causeBalance": 100,
13  "requiredFund": 5000000,
14  "eventId": "67c29fc7-eal0-414b-b2cb-29b6892d13e0#0",
15  "timestamp": "2018-09-28T12:49:12.854Z"
16 }
```

## Phase: 2

- a. Donor can also track the fund disbursement
- b. Disbursement will also record the details of local partners where fund got disbursed