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ICT VILLAGE PROJECT IN MADAGASCAR

THE APPROACH:

The ICT Village is an integrated model designed with the support of the most important international organisations (including FAO, IFA, ITU, UNDESA, UNDP, UNESCO, the World Bank) that are part of the Advisory Board to the project). The project aims at creating a model of sustainable development that fights poverty at the community level through a wise use of the ICTs and of all new technologies (such as alternative clean energy, safe water, community renewal, etc.). The initiative was presented on the occasion of the WSIS 2005 and then the replication process started.

WHERE:

The first replica of the ICT Village model was set in the Malagasy community of Sambaina, immediately followed by that of Constanza, in the Dominican Republic. Ongoing talks aim at the creation of similar initiatives in Cameroon, Morocco and Honduras.

ACCOMPLISHMENTS

Two missions have been carried out, one in November 2005 and the other in June 2006. Thanks to the facilitation of H.E. Ambassador Zina Andrianarivelo-Rafazy, the project has been submitted for approval to H.E. Marc Ravalomanana, President of the Republic of Madagascar, and subsequently to all relevant Ministries involved in the initiative. The first mission culminated with the constitution of an ad hoc Working Group including representatives of the community that has been created and that has completed a clear assessment of needs of the community. Following the first mission, all the buildings where the project is going to be implemented (elementary school, health presidium, community access centre) have been refurbished. Computers have been provided to the community and basic digital alphabetization activities have started.

On the occasion of the second mission Jeffrey Sachs, head of the Millennium Project of the United Nations and Special Advisor to Kofi Annan, has visited the village together with Pierpaolo Saporito, President of OCCAM, Zina Andrianarivelo Rafazy, Permanent Representative of Madagascar to the UN in New York and the Malagasy authorities and has complimented all for the success of the model of intervention implemented in Sambaina, which exploits the ICTs as instruments to fight poverty

and promote development also through the deployment of services such as e-learning, telemedicine, e-governance, etc. On the occasion of the visit there, Sambaina was proclaimed Millennium Village. The great interest expressed by the local population and the immediate intervention made by the Government has made possible the inauguration of:

1. a digital classroom that will serve the more than 600 students of the community, in order to accelerate the digital alphabetization of the community and create new jobs.
2. a new community area accessible to all
3. a refurbished health presidium equipped for pregnant women and newborn children.

PARTNERS

The ICT Village in Sambaina is an activity carried out within the UN Public-Private Alliance for Rural Development (UNPPA). Its main partners, apart from those above mentioned include representatives from all stakeholders: universities (University of Oklahoma, Politecnico di Milano, Università Cattolica del Sacro Cuore), companies (Microsoft, Siemens, Telespazio, Pianeta, Water B2B, etc.), civil society (above all the community of Sambaina, which has been fully involved in the whole process) and the Government of Madagascar.

OBSTACLES

So far, the project has not incurred in major obstacles: the Government has been very responsive and has followed closely activities, the staff at the UNPPA have fully endorsed initiatives and updated all partners on the steps taken. On the contrary, in case no funds were to be available it will not be possible to sustain the next steps of the project.

NEXT STEPS

Phase 1 Connectivity to the Community Centre of Access
Now that the Community Centre of Access (the Centre) has been refurbished and endowed with basic ICT appliances, connectivity is a key element to link the Centre to the rest of the world and is a fundamental prerequisite to provide all services in the next phases of the project.

Remote communities can start their approach towards new technologies only in a communitarian fashion, starting from the young people, who are always the most reactive. Youngsters will improve their skills and competence, which will facilitate new unthinkable experiences: computers will also be set in a more user friendly way, so that they will be able to be used not only by young people but also by all members of the community.

The Centre is the first nucleus of intervention and enjoys the direct participation of the community, which can use ICTs to solve many concrete problems and be part of an innovation which is shared and not imposed.

The Centre will be located in the town hall, which has already been refurbished and is ready to be connected. It consists of PCs (with screens, keyboards, mice, modems) plus the kit for satellite connectivity, which will be interfaced with specific training appliances, public access to the internet, medical presidium, and progressively will also become a unit for broadband interactive services, and eventually become a real incubator for social and economic development. The Centre will work in synergy with the other 2 existing areas (the school and the health presidium) that have already been refurbished.

Deliverables include:

➢ Teleport, where the broadband satellite signal con be received and distributed, bi-directionally.
➢ WIFI System, for the whole territory
➢ Teleconference appliances

Moreover, the analysis of the situation in Sambaina has clearly indicated that 2 other prerequisite conditions are essential to the success of the project: safe water and a reliable electric system, thus innovative solutions will also be implemented in those fields, with particular reference to affordable renewable and clean energy.

Phase 2 Training Human Resources

Training of local trainers is a key element for the success of this action. This crucial need will be satisfied though a phase of training concerning the use of ICTs and their maintenance at OCCAM headquarters or associated entities seat. Once trained, the trainers will become the means of innovation on the ground: they will have to be fluent in the local language, with a charismatic personality and high ethical profile.

In synthesis:

➢ Training of 3 trainers for a period of 3 months.
➢ Once trained, the trainers will work with other locals in order to train some of them according to the different jobs related to the Centre in a module of 6 months.
➢ A leader will be chosen, able to coordinate with the other locals in order to fully implement the action. The leader will be hired for a period of 24 months.
➢ A research on vocations and social and economic resources of the community will be completed with the participation of all stakeholders in order to define the operative lines of intervention and assistance via specific on-line services.
➢ The following phases of the action will be tailor suited on the basis of the needs of the community and will try to establish as soon as possible broadband services and mobile communication, which by far can grant sustainability to the Centre.

Phase 3 Delivery of Broadband Services

Once the delivery of appliances is completed, while training and alphabetisation begin, the needs and vocation of the community are defined, specific services are prepared by the central operative hub, which grants the efficiency of the connectivity system, coordinates the actions and feeds the web circuit with specific broadband "vortals", which provide the required services. The close relations among the different entities associated to the program and their approval to progressively place online their specific competence in different sectors (telemedicine, e-learning, e-work, e-commerce, e-government, etc.) let the communities have a concrete opportunity for development.

Moreover, services will be provided on the basis of business plan where some initial services (such as those included in the initial phases of this project and those provided by international organisations) will be provided free of charge, while other more specific services will generate an economic growth.

This is in line with the whole concept behind the Infopoverty Program, which aims at the full self-sustainability of the development process, with a real economic growth: without the progressive eradication of poverty all actions will have no lasting effect on the population.

Amongst the most important services:

1.1. **Telemedicine**, to be inserted in the local health presidium. In the following months the services delivered through a specific portal will include diagnosis, prognosis, prescriptions, special services for pregnant women, newborn and disabled people and eventually light distance surgery thanks to the participation of a network of local and international hospitals, research centres and centres of excellence

1.2. **E-learning**, to be closely linked to the enlarged school structures, open to the neighbouring communities, endowed with didactic room and interactive computer lab. A network of Universities will take care of this part of the Project, guided by the University of Oklahoma and Politecnico di Milano, which have a very strong experience in this field and have developed a series of models fit to the needs of this kind of communities.

1.3. **E-governance**, tied to the local government authority, with a communitarian centre of access, where the population can start learning how to use ICT (internet, e-mail, word processing) under the supervision of local trainers, and where they can have access to basic services such as the distribution of ID, permits, licences, official documents, visa, passports, etc.).

1.4. **Consulting for agriculture and herding**

Phase 4 Incubator and Hub for economic activities

In the light of these remarks, it is clear that the transformation of the Centre into an ICT for development incubator is a crucial factor for the self-sustainability of the whole program once the first phases are completed.

The establishment of a hub of interactive communication (WIFI or WIMAX) extended to the whole community can also be an important step in making people communicate within the country and with the outer world, activating inter-personal initiatives and eventually giving a physical and psychological perception of being part of an open world. This new perception can create positive reactions in the population, being an important factor also for the economic situation.

Thus the incubator has a great responsibility: that of sustaining the process of innovation, fostering real and lasting development through the use of new technologies and avoiding the creation of possible frustrations in the case the initial hopes were not to be matched with the realisation of the program.

Phase 5 Activation of possible start-ups

At this stage the village is already open to new experiences, rich in knowledge, aware of its cultural and social identity and curious, stimulated to give real value to its agricultural and craft products. The community is getting hold of new techniques of trade, it is being structured also in regards to the administrative apparatus, thanks to basic applications of e-government. Now, at this stage, it is important that some business activities are carried out entirely by the locals, with initiatives such as ICT appliance maintenance, cyber cafes, and data elaboration.

This phase will lead to the sustainability of the whole incubator and the creation of widespread wealth, and will be assisted for the initial 3 years.

NECESSARY RESOURCES TO IMPLEMENT PHASE 1-2-3

Phase 1:	Phase 2:	Phase 3:	TOTAL
40.000 €	20.000 €	60.000 €	120.000€
Equipments and installation	Training of 3 trainers for 3 months	Equipments and devices for	
Connectivity 1Mb downlink/256Kb uplink for 3 months	Hiring of local leader/project manager for 24 months	e-learning	
Maintenance		telemedicine	
Teleconference unit		e-governance	
WIFI system		Connectivity 1Mb downlink/256Kb uplink for 24 months	

NB: Costs do not include services that will be activated