

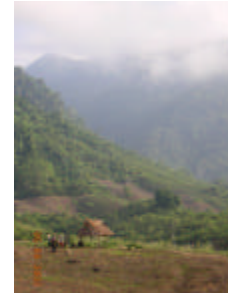


Model for Success

Participatory 3-Dimensional Modeling (P3DM)

Tabhing Commune and Song Thanh Nature Reserve Bufferzone section

The MOSAIC is a partnership between WWF, the Vietnam Forest Protection Department and other key departments in Quang Nam province. MOSAIC is a landscape management and planning process with implementation at the local community level to meet twin regional goals of biodiversity conservation and secure local livelihoods.



Tabhing hillside fields

The MOSAIC aims to develop a provincial conservation strategy. One strategic area for developing pilot community-based approaches to forest and natural resource management is Tabhing commune, selected for the following reasons

Site	Approach	Brief detail		
Tabhing	<i>Co-management of forestland by communities, Song Thanh Nature Reserve (STNR), and other authorities</i>	Prior to forestland allocation, the management responsibilities of the bufferzone, and select zones within the Song Thanh NR area, will be negotiated with communities, who will in turn receive institutional support and training.		
	Biological importance	Socio-economic context	Socio-political context	
	<ul style="list-style-type: none"> • Bufferzone / core area of STNR • Doucs and tigers present • Important freshwater • Area of connectivity between STNR and northern Quang Nam • Wildlife trade route • High watershed value • Mix forest types 	<ul style="list-style-type: none"> • 95% ethnic minority population (Ka Tu) • 60% 'poor' households • High incidence of shifting cultivation • High use of forest products, both timber and NTFP's 	<ul style="list-style-type: none"> • Highly ranked issue of outsider resource use • Suppressed balance between traditional institutions in favour of state admin structure • Site of STNR management board • High level of resource use within PA 	

Following extensive biological and social research, a series of interventions were mooted with key stakeholders. A draft activity schedule was approved by the community, through a consultation 'jury' process, and finally approved at a district-level workshop. The final action plan for Tabhing details twenty key interventions over a six month period. This plan will kick start a longer-term goal of community-based management of forest and natural resources, supported by local authorities and Protected Area staff.



Pa Lua Village meeting house

An innovative tool for planning and developing activities was decided upon – to make an accurate 3D model of the area, upon which to hinge discussions, communication and planning. Village sketch maps, 2D scaled maps, GIS maps, satellite images and various cartographic interpretations, had previously been



3D models allow for vigorous discussion

prepared for various purposes, but do not have the same visual potency as a 3D model - one key factor being that contour lines are difficult to interpret.



The P3DM activity was introduced to the provincial authorities in an orientation seminar, with participants from all relevant departments, including planning and investment, land administration, people's committee and agriculture and rural development.



Artist mixing colours

The forest protection department hosted the event. WWF, led by James Hardcastle and Do Quoc Son, worked in tandem with a team of experts from the Centre for Environment and Tourism Development (CETD), from the Hanoi Geographic Institute, and Dr. Le Van Lanh, of the Association of Vietnam's Parks and Protected Areas (VNPPA).



Provincial Orientation

The activity was funded through WWF, by a DGIS 'Livelihoods' grant. One of Vietnam's prominent artists, Mr. Pham Luc, gave his time for the activity also. Mr. Luc, formerly a Major in the People's Army of Vietnam, had experience of model making in planning offensive action during the American War. He was glad to assist in the activity now to help conserve the same land that 30 years ago was the epicentre of the conflict.

The coordinating team, and twenty 'trainees' from provincial departments as well as from other protected areas in the Central Truong Son Landscape, then traveled 170km to the mountainous commune of Tabhing, location of the Song Thanh Nature Reserve Management Board. This was to be the location for the modeling activity. The activity was then carried out between the 6th and 16th May 2003. The participants received an overview and orientation, before beginning to assemble the model and preparing to invite the local Ka Tu people to assist.



Preparing base map and table



Local students at work

The area covered by the model totaled 300km². A base map at 1:10,000 scale, with 20m contours was used. A table measuring 2m x 1.5m was constructed to support the model. Carton sheets, 40mm thick, were cut for each contour plane of 20m, giving a vertical scale of 1:5,000. After a preparatory day, students and teachers from Tabhing secondary school were invited to attend, over two days, to help make the model.



Tracing contours



Fixing carton layers to the model base

Three groups were necessary: 'tracers' to trace the contour levels onto the carton sheets; 'cutters' to cut the carton into the contour layers; and 'fixers' who pasted the carton layers onto the base map, using nails as geo-referenced mountain peaks. The students showed remarkable skills, and received a good lesson in geography, the environment and their local area. Using students saved valuable time for the local farmers and officials alike, who could use the final model directly for discussion.



Cutting carton layers



Blank relief model

model, orientation and



The information flows...

different forest classifications, shifting cultivation land, cinnamon plantations, and even wartime helicopter bases. All materials - paints, coloured yarns, pins, papers and pieces were available locally. As the



Negotiating boundaries



Extracting info

Once the model was completed, it was whitewashed and pasted with small strips of locally produced paper, to merge the edges and smooth the ridges. Locals from nine villages in Tabhing, and two from Ka Dy commune were invited, in two groups, to transfer local knowledge onto the model. A total of 75 villagers actively participated in producing the

facilitation was conducted in both Ka Tu and Vietnamese languages. Villagers elected what features they would place on the model, and which colour, symbol, line or pin would represent that feature. With five or six people from each village, there was enough 'peer discussion' to place features accurately. Discussion arose between villages, and several minor conflicts were resolved during the model-making, others clarified for future resolution. Features included paths, streams, households, traditional meeting houses,

the model began to take shape, specific issues emerged. Foremost was the placing of the boundary of the Nature Reserve by the STNR staff. It was instantly clear that it conflicted with local agricultural and forest resource use. The villagers, from both groups, demarked a preferred boundary, to which the STNR director agreed in principle, and assured that he would follow-up with the provincial authorities to re-adjust the reserve boundary. Other land disputes between villages were settled pending follow-up meetings and agreements.

Once the model was completed, it was 'tidied-up' and information was clarified, and recorded by the project team. A representative from each village presented the local land and resources to a panel of local, district and provincial authorities and officers. Issues in terms of Nature Reserve boundary, illegal gold-mining, village forest-use zoning, and key access routes used by 'outsiders' for logging and hunting, were discussed and plans were made for more specific follow-up.



'We are here'



This is my forest



Final product and certificates

Finally, the participants reviewed the achievements and lessons of the P3DM activity, and using digital photography, extracted the data from the map to use in a GIS. Ideas for future replication and for follow-up were discussed. The MOSAIC project will follow-up on the information exchange, participation and discussion from the modelling exercise, to support the Tabhing action plan implementation:



- Official land-use plan for Tabhing commune
- Zone of responsibility for newly-formed ‘Village Protection Teams’ to work in tandem with authorities to protect village land-use and resource rights against outsiders, and to monitor forest protection agreements
- Basis for detailed plans for forestland allocation, and tool for demarcating plots allocated to each user group, allowing for round-table discussions between allocatees, peers and neighbours
- Zoning within the Nature Reserve and re-assessment of boundary. Tool for identifying areas of high-conservation value forest at the micro-scale
- Planning patrol routes, survey and camera-trapping locations
- Visitor interpretation
- Transfer of the model to the commune leaders for use in village development planning, after the six-month planning period at the NR headquarters
- Tool for negotiating action to curb illegal gold-mining with district and corporate stakeholders
- Tool for orientation and planning for the 661 programme on forest rehabilitation and plantation
- Tool for development planning for agroforestry and irrigation, in tandem with GoV programmes (133, 135) and development NGO’s and projects (FIDR, CBRIP)



Feedback



Preserving local forests for future generations



Song Thanh river is polluted by illegal goldmining

The Nature Reserve have expressed their desire to create two further models to complete the coverage of the bufferzone area – one in Phuoc Son district, to the southeast of the reserve, but at a larger scale to cover a wider area, and one in ChaVal, to the northwest, again at a larger scale as the population is more scattered.

The province are impressed with the potential of the tool, with the ease and cost-effectiveness of the construction, and have expressed an interest in modeling the forest area of Que Son district with a view to establishing a protected area, and also for Cu Lao Cham Island, which will develop a marine protected area to complement the forest reserve on the island. The local government have thanked WWF for exchanging skills and tools such as P3DM to help achieve sustainable forest and land management. In the words of the leader of Zia Ra village, in Tabhing, the model has been a good step towards increased ownership and responsibility for the local community to manage their own resources, a step which the local authorities and MOSAIC project now need to turn into action.



Model presentation workshop