

## Tragedy and Aftermath in Tajikistan

By Doug Chabot

The week of March 19 was a bad one for Central Asia. Heavy snow followed by a downpour of rain introduced their most widespread avalanche cycle in memory. Tajikistan, northern Pakistan and northern Afghanistan had avalanches hit roads and villages, many in the dead of night. Most were climax slides trapping and killing people and also paralyzing an entire region. In southern Tajikistan near the border city of Khurog, 52 avalanches hit the valley floor covering roads. Nineteen of these slammed into villages, many for the first time ever. Village growth in the last 20 years has spread buildings, residences and grazing into the runout zones of enormous avalanche paths with many paths running two to three thousand meters vertical.

FOCUS Humanitarian, the disaster relief arm of Aga Khan, a large non-governmental organization, is the lead agency providing relief in these remote zones since governments are ineffective outside of main cities. FOCUS typically deals with landslides, mudslides, floods and earthquakes. Avalanches were now added to their list, and they were not prepared for it.

I was asked to help. In the last 12 years I've climbed and trekked through many of these areas. I understood, on a basic level, the geographic and cultural difficulties they faced. On June 8 I flew to Dushanbe, the capital of Tajikistan and spent five days with 20 FOCUS field workers and management from Pakistan, Afghanistan and Tajikistan. The Pakistan team almost didn't make it when the cargo door of their airplane flew open after takeoff from Islamabad. The sound of metal twisting and smoke pouring in the cabin with an odor of burning rubber had them white knuckled during the wobbly landing. The disaster relief specialists almost succumbed to a disaster themselves.

The training had three objectives. The first was to give everyone some basic avalanche knowledge. The second was to come up with an avalanche incident form they could database for future reference and research. The third, and most important, was finding a way to convince the villagers to not rebuild in the same dangerous location.

The lectures were a mix of Level 1 and 2 curriculum with some extra time spent on mitigation, forecasting issues and avalanche defensive structures. In this area of the world opportunities or even a desire to winter recreate are close to zero. No one skis or snowshoes and FOCUS's avalanche experience deals with the aftermath, exclusively in the runout zones. No one has ever seen a crown, heard a whumph or dug a pit. Their videos of the March avalanche cycle show them walking across debris in loafers. Some of the participants spoke only Russian so a translator echoed in the background as I lectured. I was constantly editing my talks since my usually funny pictures and jokes fell flat. Also, out of respect for Muslim culture reference to alcohol or pictures of women in anything but full winter garb were removed. These were the most boring presentations I've ever given, but the students were the most serious I've ever taught and they drilled me with pointed technical questions. Everyone had at least one university degree, could speak multiple languages, and had years of field experience. Most were either geologists or engineers. They grasped snow metamorphism quickly and challenged me with questions about impact pressures. One of my favorite moments was when I described the destructive

power of powder clouds. One of the Russian speaking geologists said powder clouds are great because they save lives: the blast blows people out of the way of the debris! I told him this was crazy, but of course he had a story to back up his incredible claim. His cousin was blown across the Panj River, the size of the Yellowstone, from the Tajikistan side to the Afghanistan side. He was knocked out, came too and realized he was in another country, without a visa! We had some good laughs on that one.

During one day we created a five page avalanche accident form that addressed the unique situations in all three countries. The information gathered will be fed into a centralized database that FOCUS is committed to building. Unlike the forms we use in the US for recreationists, this has fields for listing how many cattle and chickens died as well as detailed questions on the history of the avalanche path. These countries have no avalanche warning system, no mountain weather stations and no snowpit data to record. And rescue is done by untrained neighbors with survival being a matter of luck.

We spent an entire afternoon tackling the thorny issue on how to convince the locals to move out of the runout zone. We all had to take the long view: not rebuilding damaged residences in the same location as a first step. A second step is not building any new structures in the avalanche path. This sounds simple, but it's not. In all three countries the two main hurdles were the people's fatalistic approach to life; an "Inshallah, I'm powerless and Allah is in charge" view, and the fact their lands have ancestral significance. Relatives are buried there and in some cases the land has been in the family for centuries. We role played, wrote on butcher paper and brainstormed ideas. Solutions all all came down to basic education of the locals and especially among the village leadership. These small but significant steps will hopefully lead to measurable changes in the decades to come.