



Molly Burhans - USA

Thanks so much for having me here today and it is such an honour and a pleasure to be here with you. I would like to start off with a map, because that is so fundamental to the work that I am doing. This is a map of the Catholic Church globally. To our knowledge, this is the first digital map of its kind. It shows different ecclesiastical jurisdictions at administrative one, two or three boundaries. Then we can click on the map and we can also start to see information, like the Bishop who leads the diocese and the province of the dioceses within. Something that is amazing about maps is the power of them to tell stories and also to provide really vital information. When you think about this, this is actually kind of momentous in a couple of ways because it is the first global digital map of the Catholic Church that we know of. It is also the first global map of a major global religion. So there are a couple of major historical moments behind this.

We can look at changes in Growing Days by 2100, under RPC 8.5 as well, and we can connect that with the Catholic communities and begin to see which diocese will lose the most Growing Days if we keep on going forward business as usual. And, what this means, is people like Bishop Castriani within the Diocese of Manaus and his 1.4 million Catholic city overseas and the total of 2 million people will experience the loss of 143 Growing Days by 2100 if we do not take immediate action against climate change. This is very serious and I hope that these maps make it even more personal to everyone in this room who is of a certain faith, the impacts of climate change. But, I think there is great hope looking forward too. As we care for the earth, thoughtful land management strategies foster clean environment, promote public health, address social justice concerns, add beauty to the world and support life in its many species, which are vital to our survival. But, the way we are treating the earth right now is completely unacceptable.

We recently passed the 400 parts per million benchmark; Lord Stern says there is a prediction that hundreds of millions of people will be displaced in the next hundred years due to this. The numbers are daunting and we have so much at stake for addressing climate change and the social issues with it and the impacts we are already seeing associated with it. So, I see my role in this, as the founder of the Catholic Geographic System, to facilitate ecological land use planning, that benefits the world ecosystems and people while promoting interoperability among Catholic organisations, globally. And, the Catholic Geographic System has been designed for high impact, the efficient management of resources in such a way that is socially and physically sustainable. Under the umbrella of the Catholic Geographic System there are four organisations which support each other. The Catholic Geographic Information System Centre provides the data infrastructure and a hub for Catholic data and knowledge management. Catholic Geographic Incorporated provides cartography services and a store for maps. On the other hand, Catholic Geographic Society is much like the National Geographic Society, it provides an on-going engagement in the ecological conversion. What we found throughout this project, even since I founded it one year ago, is that since *Laudato Si'*, things are starting to level off a bit, since its release, and interest in the ecological respect among people. We really want to keep that momentum going through telling stories with geography, which is actable. The last organisation is GoodLands and that is a conservation and ecological planning organisation that takes the information we map and puts it to work for environmental storage purposes. Catholic healthcare's oversees 26 per cent of healthcare facilities in the world today, Catholic education is the largest non-governmental network of education in the world. In 50 to 100 years we want to see Catholic conservation sustainability be the largest non-governmental network of its kind in the world and we see maps as a critical part in bringing together partners to do that.

So, with the Catholic Geographic System provides the mean for understanding it. I am going to talk specifically today about the information hub and how it can be really helpful as an innovative approach to all the Sustainable Development Goals, that can rapidly, globally scale our project with GoodLands and also other Catholic community projects. So, the Hub helps facilitate digital transformations of Catholic organisations and that is because when you put things on a map you naturally have to create really solid, well-curated databases with the data that you check, so that mapping actually begets the digital transformation. The Hub for data management and infrastructure enables efficient secure access, retrieval and dissemination of information. What we would do to incentivise Catholic NGOs to join our hub, beyond the few or handful, I should say, that have committed to our SDI phase 0 development, is to provide a market place for them. This can help reduce millions of dollars in data collection across Catholic organisations, while providing a market place for them to incentivise sharing their data. There is a lot of jargon that just came out of my mouth, so let me just explain that for one moment. If the Sisters of St Joseph's want to map their orders and Catholic Relief services is going to respond to an earthquake, having the data infrastructure in place allows, say, Catholic Relief Services to quickly see where all

the Sisters are located, or to quickly see where all the other facilities are located that can be used for emergency housing within Catholic facilities. So, the potential of this is immense when you start to think about the scope.

The potential benefits of an enterprise GIS, over time, are in the magnitude of billions. Billions of dollars saved potentially. When you look at the return on investments for projects like this, even just one county, King County in Oregon in the US, spent 14.6 million dollars on their GIS in the year 2010 and they saw a return on investment of 180 million dollars alone. So, this is not only helping create a sustainable future, but also to fund itself and benefit other Catholic organisations. In *Laudato Si'* Pope Francis says that we are called to find new ways forward to address the issues of our day and I truly believe that understanding ourselves spatially in relation to the issues at hand is part of our calling to moving forward in this age and with the serious issue of climate change. Thank you.