**Daniel Beitler** 

NTÓNIO Trindade is the ACEO of CESL Asia, a solutions company specializing in environmental infrastructure, energy, facilities management and urban planning. He met with the Times ahead of the Macau International Environment Co-operation Forum and Exhibition (MIECF), which kicks off today aiming to facilitate discussion on some of Macau's most pressing environmental concerns, to discuss his outlook on energy consumption, waste management and what the MSAR can do to step up its game.

For António Trindade, who heads the Association of Environmental Protection Industry, "Macau is facing new challenges under the economic adjustment and some of those relate to how we can

neighbors to collect our rubbish? Or are we still going to request our neighbors to clean our wastewater? Or to send us more electricity and pollute themselves more [in the process of doing so]?

What we really need is a localization of solutions and this is genuinely hard work. That doesn't mean using local technology, it means using local abilities to deploy the best possible knowledge and resources. And the best possible are not [necessarily] the most sophisticated or the latest.

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MDT - What is your assessment on the government's action or inaction? Does the government regard this as a priority?

AT - I think that the government has made progress but... I want realistic thinking. The problem with the government is that they are doing things the way that they were done or were supposed to be done 20 or 30 years ago. They are certainly not up-to-date and their approaches – and even their results – are not suitable in meeting the challenges of today.

I don't think that the government regards it as a priority. Even the Legislative Assembly is talking about it, but it is still in the stage where everyone talks about it and everyone has an opinion on it — like me — but the fact is that there exists no solution yet.

Therefore while the government has valuable opinions, they have no solutions.

Remember though, that this will not be solved by outside people [from outside of Macau]. Outside people, outside knowledge and outside capacity can certainly contribute a lot, but local leadership, local implementation and local long-term commitment is required.

## Trindade: 'Macau doing poorly' on waste management, energy consumption

manage our environment.

**ENVIRONMENT** 

"We, as a company and as a group of organizations, need to communicate with other companies in Macau, the public community at large, as well as other the local entities, to find solutions to some of the existing problems."

One of the founding members of MIECF, Trindade starts to explain the importance and impact of the forum.

Macau Daily Times (MDT)

– What is the relevance of this year's conference?

António Trindade (AT) – It actually brings out so much value by bringing people together to discuss these issues. They are not boring, technical issues; they are day-to-day things that everyone relates to in their regular lifestyles or at work. Because that is exactly what the environment is about. It is about life, about life cycles, and the quality of that life.

That is what the conference is about, aside from its actual theme, which is mostly about zero waste and innovation. Zero waste, to me, is not an objective; it is a consequence of a high quality of life.

MDT - According to your assessment, how is

Macau performing in terms of waste management, energy consumption and improving environmental standards?

AT – Macau is doing poorly. Poorly because we are polluting and poorly because this pollution means that we are not growing [in terms of quality of life].

Pollution is an indicator of deterioration and limitation of life. Societies that create so much waste are putting themselves in unsustainable situations, as at some point you will reduce more value than you can create.

We are actually polluting

when we try to increase capacity without addressing the process. In the case of the water treatment plant, for example, why build another one before the first is efficiently handling waste?

Another example is in automobiles. In Macau you cannot just add more automobiles into the system, you need to also take into account newer models that are more energy efficient, with cleaner combustion [to replace the older ones]

We are transferring problems from today to ten years from now. Ten years on are we still going to request our



MDT – Do you think that there is a place in Asia or elsewhere that can serve as an example to Macau?

AT – The point is like this: Macau was the example in Asia 20 years ago. When we were doing our wastewater treatment plant, Macau was one of the first cities doing with worldwide.

Outside of Japan, we were the first the have a waste-toenergy plant! Before Singapore, before Taiwan, before China.

At that time we had thousands of visitors from everywhere. I mean in government positions: presidents, prime ministers, party secretaries and mayors all came to see what Macau was doing.

Today we have lost this edge. I have to caution however, that we cannot find a solution through an example.

Macau is rich so we can buy whatever from wherever in the world... this is not the issue. The issue is why are we buying things without knowing first if they are applicable here. And who is going to use them? How are we going to get people to use these systems?

What can be learned from an example elsewhere is will-

power: the motivation of the people to find a solution.

MDT – If people are not coming to Macau to observe anymore, where are they going these days?

AT — I have no idea... but you have certain good examples in China, and you have good examples in different places in the world. The fact is, nowadays, when you look at developed solutions that might fit Macau you can never simply transfer them here.

You can draw a lot from Hong Kong and Singapore, but the only thing you can really transfer is the drive and the willpower to do better.

Of course, when Macau is looking to learn and get inspiration for these sorts of projects and solutions we would need to look at a country at a similar level of social development and with similar characteristics as Macau, for example, as an island [or peninsula].

MDT – Can people's behavior and approach to cleaner environmental practices be changed through education?

AT - Yes, I believe this to be the case.

Actually, I noticed that the

secretary for public works [and transport] said that: 'I myself go to drop my waste in the recycling.' But after hearing that I realized that at the back [of the recycling process] there is no infrastructure to take care of it.

I realized that education in itself may be a huge step forward, but the lifestyle cannot be changed only with communication. There is also a need for innovation, collaboration, and participation from all sectors of society.

MDT – Do the 80,000 to 90,000 average daily tourists in Macau have a significant environmental impact?

AT – Here is the issue: We are not going to punish the tourists when they come here to visit. After all we invited them in the first place!

Actually the tourists are here to improve wealth for us so that we can do better [in terms of improving our environment]. In turn we are going to provide them with a better experience, and this will also provide us with a better quality of life as well.

Cutting the number of tourists is not the solution, however there are other solutions

such as in infrastructure. If the tourists are coming just to Cotai, then instead of bringing them from the border gate, why not bring them [straight] from Hengqin? This is a better approach and produces less waste, less transportation and less pollution.

Another example is in NAPE. When you go to NAPE you can see so many buses parked there. Why are they there? They are there because the shops are nearby, so of course the buses will [congregate] there. The solution is not to simply change the type of vehicle, it also requires urban planning.

MDT – Are large companies and casino operators having a positive or negative impact on the environment, and can they do better?

AT - Can they do better? Yes, but better in what sense? That is the real question.

I think that they have made a big contribution to Macau – positive in a lot aspects, I would say most – and I don't think that anyone would ask them to contribute even more...

I suppose that they will [eventually] do better because if they don't then their competitors will overtake them.

MDT – Do you see a lot of wastage when you walk through the hotels and casinos?

AT – Yes! Because of the nature of [their] economic production... which is changing as their revenues are falling. Since the casinos are motivated by profit too, they will [at some point] start to look at their efficiency.

They will find a way to become more efficient and it will reduce the waste created. That's where I expect the motivation will come from.

MDT – Is waste a by-product of luxury?

AT - That's the issue... but I don't think so. If you formulate your business in that way then you will be out of business very quickly! I am not pointing fingers however a lot of the waste in Macau originates here, for example food waste.

But luxury is not always wasteful, or doesn't have to be. Actually the most developed societies tend to produce far less waste that those in the development stage because once they reach sophistication waste can become resources. Waste is not the end-product.