Lessons to go Further ²⁴³

Lessons to go further - Participants

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Lessons to go Further

Discussion

Geneviève Dubois-Taine:

In order to launch this last part of the Noumea seminar, I want to stress some of the topics that have been discussed these last two days and which belong to the fields we are dealing with in this series of seminars. I hope we will have open and in depth discussions on them.

First, I think it is necessary to recall the general background of the Pacific Island nations in comparison with the general backgrounds we observed during the Hong Kong and Santiago seminars: each of the Pacific Island nation is relatively small, with few means, in comparison with the other agglomerations and countries we analysed in the previous seminars; 60% of the population is an urban one, but everyone feels rural. People live in very dense settlements and there is a very little awareness of the natural risks and of the health problems. Urbanization moves on: how is it possible to take advantage of urbanization for the economic growth of Pacific Island nations?

Second, we have talked about the irreplaceable role of the public authorities that have to fix the goals and the targets, that have to regulate and to make the necessary reforms in order to supply all the population with good urban services. In some of the cases analysed here, the public authorities were very active, in some other cases they were not so active. But alongside the political role of the Public Authorities, one finds public management: how to manage urban services, how to manage urban growth, urban improvement and so on. Even if the Public Authorities know what to do, it is often difficult to know how to do it. We spoke about step by step processes, integrated management, involvement of all the stakeholders taking advantage of local dynamics, forces and needs. We discussed also the question of subsidiarity between one level of public authority and another level, and also the question of boundaries, scales and about the necessity to find the right federation of public authorities in order to solve certain problems. This was quite evident on the issue of waste management.

Third, we didn't discuss so much about the involvement of the private sector that has its own strategies and constraints. Of course, Public Authorities have to set up the appropriate institutional and legal background in order, for the private sector, to be able to intervene in town improvement... And in some countries the private sector cannot intervene, as we saw.

Fourth, regarding environment, we had very interesting presentations on risk management and on the very dangerous situation most of the Pacific Islands are in regarding earthquakes, tsunami, cyclones and so on. Nevertheless, most of the new urbanizations don't take heed of these major risks. How to make everyone aware of that issue? The five cases presented here allowed us also to ask the difficult question of environmental standards. They have to be defined step by step according to their cost, their acceptability by all the stakeholders and the realism of their application.

Fifth, we did not really speak of social issues, but social issues were behind almost all of our discussions and all our lectures: how is it possible to take care of all the components of the society, of all the kinds of settlements, the peri-urban ones, the inner city ones, the rural ones, of the relationships between rural and urban areas. We mentioned many times the question of tariffs, cross-subsidies; I noticed that in some cases the industry, hotels and private enterprises pay more in order to help poor and low-income people, who consequently pay less for water and that in some countries it's the contrary, people pay more to help the enterprises (Nouméa). A little strange.

In relation to environment and health, many lecturers insisted on the important role of education in order to increase the awareness of the population in regard to these problems. Children and women are very important and very efficient vectors in society to increase awareness.

Finally, as stated in Santiago during our July 2002 seminar, only integrated approaches can allow us to reach sustainability, approaches which have to be set up at large scales and that have to take into account the four dimensions of sustainability (ecological, social, economic and cultural).

This is the summary I submit to all of you just to launch this discussion and these are the ideas and the items on which I think we have to go in depth, we have to discuss. Please, perhaps some of you at this table can ask questions or make comments on what she or he has found the most interesting. Lets go for the final discussion.

Jacques Leguéré

For the past two days we've been talking about sustainable development, about towns and, after those two days, have we moved ahead in this field? What struck me, as an outsider, is that whatever the situations, whatever the scale, we find ourselves face to face with the same problems. The examples presented are proof of this. In the end, whether you are in an atoll at the same level as the sea or just a few feet above or on larger developed islands, you find the same logic of sustainable development.

The Mayor of Bora-Bora has explained that in his island, and I think this is very important, it is the environment that will control his island's hotel development. This means that, at some point in time, it is the environmental context that will stop the hotel infrastructure development and I think this is very important. In the «Big Pipe» example we have a sustainable development of a resource which, whatever happens, is certainly long and expensive, but which will be able to satisfy Nouméa for the next 30 to 40 years, and, unlike in Bora-Bora it is, if not unlimited, at least extremely important.

In Apia, I think that what we have been presented there regarding sustainable development is finally a problem of land ownership. And in the Pacific, 40% of the population lives in cities. This for me is something important because one tends to think that Pacific Islands are just people living on the beaches and in fact, as was demonstrated today, we are confronted with land ownership problems and these land ownerships problems are linked to the sustainable development of cities.

Finally, for Fiji, we got an exposé on waste management, a problem we are very familiar with in Nouméa, and perhaps in an even more dramatic proportion since our tonnage is twice that of Fiji. Here again, for our children, for the sustainability of this development, it is necessary to have this waste rationally managed.

Thus one realizes that maybe the issue of sustainable development and of cities is somehow more crucial here on the small Pacific islands because they are very fragile islands where space is after all rather limited. Finally one realizes that we find in each country the same desire to work for our children so that our ocean remains pacific.

If you allow me, the conclusion I would like to come to, is that the interest of reunions such as this one, and in New Caledonia since I am the representative of PECC New Caledonia, is that they bring us the comparison with the countries and the islands that surround us. We all have a tendency to look only at our own problems and to think that they are paramount, or at least unique. Through these examples, we understand not only that sustainable development is something inescapable but also that one can find in these experiences examples, methods, recipes that can probably be applied elsewhere. I am thinking in particular about land ownership. I think that in the Loyalty Islands in New Caledonia the land ownership issue is very important since in those islands 100% of the land belongs to the Melanesians. There we are confronted with a truly major problem: implementing development, and a sustainable one on top of that, implies working on land ownership.

Robert Guild

Mr. Bret made a very simple, but very accurate observation: « We know what to do, we just do not know how to get it done». I think that for me the lessons from the past two days has been that it is the institutional structures, that we either have or do not have, that determine whether or not we are going to be successful. I have been thinking: what is the metaphor or the hook that is needed to get people interested in integrated planning and urban areas? We have to be honest, unless we are engineers, infrastructures put people to sleep, provisions of urban services is just plain not exciting. But we hear people talk a lot about proper management and good governance and those sort of things, and I think that the idea of integrated urban management is probably the way to proceed because if you have a framework that makes sense to people, that you can explain in one sentence, then people can get interested in how what they do fits within that framework, whether it is financing of a water pipe or of a rubbish dump or any other particular aspects of urban services. Then, you can start to pull together the different sectors and get people interested and working together. So I am going to take the lead from our friends from Apia who have been busy convincing me that this idea of integrated management is the right way to approach the overall question and stop talking about infrastructure, which is what I normally tend to do. I want to thank our friends from Samoa for that insight.

Jacques Bret

I will say a small word because my friend cut the grass under my feet. What I want to say is that last century all the decisions on the big projects were taken by the governments. At the beginning

of the second half of the last century, I mean 1950 - 1960, we saw that the governments started sharing a little bit the power with the regions and the municipalities and so on... Today, we have to share this decisional level with the customers, with the NGOs, with the landowners, with every party which have not the same purpose, the same meaning, but we have to take care of all these components if we want to have sustainable development. The problem is that on this Earth, we are renters, we are not the owners, and we have to transmit this earth as best as possible to the coming generation and this means that now, in our projects, we have to put environment first, and we have to put sustainable development first too.

Alf Simpson

I always find that when trying to deal with something, what we have to try to do, if you want to do something, is to make it as simple as possible, to simplify the issues as much as possible, especially when you are dealing with a diverse region with totally different stakeholders in each of the regions. You need to figure out, if you want something done, what is the simplest way to get it done, and obviously those are some of the messages that came through. For example in the Bora Bora case, the reasons why they are motivated to do something are obvious. The mayor of Nouméa has told us the reasons for the Big Pipe and they have something that drives that decision; the reasons for Samoa and Apia, their particular route, were told to us. The issues also regarding why some areas are not moving ahead, and maybe the Port Vila case has explained that reason. The reason is that the real issues, the real needs for decisions to be made are not being simplified or enunciated clearly enough for that decision to be made. The cost-benefit analysis has not been done, also the cost of making or not making a decision. It's all being complicated or masked by other issues.

At the end of the day, people will do things for their own reasons and not for your reasons. No «off-the-shelf» kind of solution will satisfy site 247

specific problems. It does not necessarily mean because it is right in Europe or somewhere else. it will be all right for different countries in the region and I think the representative from Wallis and Futuna tried to tell us that. At the end of the day, they will have their own pacific island countries and cities, and the people in those cities will make their own decisions and will go along their own way for their own reasons. We have to translate what sometimes are complex technical issues into simple issues so that we can help them make those decisions. For example, we have to tell them that the issues of population growth, particularly when now 50% of the population are going to be in urban areas, make the issue of hazards and risks that they face more real.

A major issue in the region is that many of the countries have been sold on the issue of sea level rise. And this is the simple image they have in their mind that they're all going to all sink beneath the waves. So, naturally this is the thing they are going to go and stand on the international stage and talk about. But if we were to explain the issue that they will get buried under their own waste and own rubbish, long before the sea level rises and if we can convey this kind of message, maybe we can a change in focus and get some action. When they understand something or when they think they understand something, only then will they act. Maybe that is the issue, all those things we talk about we have not been able to translate into the Pacific context. We talk about the fragility of the environment, the vulnerability of the small islands states, and yet we have not been able to translate this into what the Pacific islander decision maker understands. The issues such as wastewater and the impact of solid waste management, they do not understand. If you land in Funafuti and you go to the end of the atoll, this is the island, the country that says it most fears the sea level rise, the waste problems and the borrow-pits, which are verge on being cesspools, are horrendous environmental problems, but do vou think someone speaks on the global stage about this? No, they talk about sea level rise, because that's what everybody understands and fears.

I agree with the issue of the integrated approach, that we need to change from a vertical to a horizontal way of dealing with issues and developing those linkages. We are all ex-colonies and we have had a system imposed to us that was useful in those early days. But the situation of dealing with the environment is now totally different.

Lye Lin Heng

For me, it has been a learning experience, I mean not just listening to the participants here, but over coffee breaks and lunches, I tried to learn more about the Pacific region. Some issues have not been raised such as the level of education of the people, the role of women, what is the status of women... but in my conversations at these breaks, I have learned a bit more. I think, to me, the picture of the Pacific as a paradise is still very much possible, but I was brought down back to earth today by looking at the Fiji case.

I would like to say that the situation is certainly salvageable and at the heart of it all, is the need for an environmental management system. I can see the main problems being land tenure and how you need to solve that but it might well come with education of the people and I understand that the chiefs are getting more and more younger and better educated and it may well be that, with this system of public participation, where you discuss with the Chiefs..., you may be able to convince them that the environment needs practical solutions. The issue of land tenure may well be overcome. I think we have to look at that seriously.

In the end, it is a question of governance. I think it has been well put that you know what to do but you do not know how to do it. As an environmental lawyer, we have discussed today the various laws that need to be put in place. I just want to say that laws are part of this management system and you need the institutions to enforce the laws, you need the people to look at who is breaching these laws, so first you need environmental governance starting first from the government, the institutions, the laws and then you need to provide the environmental infrastructures. And lots of our

discussions have been on the provision of the environmental infrastructure. For example, the Fiji case, how to go about doing a landfill: the details have not emerged but I assume that the landfill in Fiji will have to comply with EC standards. It was not made clear if you are laying impermeable membrane to stop the leachate from coming out, neither was it mentioned that the landfill can be a source for power. I am not sure that is being considered at all because my understanding is that the Pacific islands import oil and the power is generated through the burning of fossil fuels. Maybe we ought to consider other alternatives, and part of it could lie in your waste and I think methanization provides some power and likewise landfills can be a source of power.

There has not been any mention of damming of rivers for power, which is probably good because I think that is environmentally very destructive, but in terms of clean energy, certainly in Asia and Southeast Asia, this has been considered by many of the governments. A lot of NGOs are very concerned about this.

In relation to, again, the laws, I am not sure if in your constitutions there are any provisions for environmental protection, but for the countries that are going to be independent, it might be good to bear that in mind, provide for environmental protection, care for the environment in your constitutions. At least, you have that as a starting base, and then you can have all the other laws to follow.

The need to build capacity. It runs through all of our discussions, the need to build capacity. Starting right at the top, the persons who are in power, the local authorities down to the population, the village and to the village heads, etc. This is very important and I think there are many institutions that help to build these capacities. For myself, I can only speak of Singapore and what we can do to help. Our center runs two courses, one on coastal zone management and the other on urban management and this program is initiated by the Ministry of Foreign Affairs. The National University of Singapore has a Master's Program on environmental management with a few scholarships available. It is a multi-disciplinary program involving seven different faculties and we would welcome participants from the South Pacific.

Nola Kate Seymoar

I was just thinking that you have a great advantage: you are small and you have no money. That means that you have the chance, I think, of coming up with practical, useful solutions. I have worked in lot of different countries and the large and wealthy ones are not the places that come up with, in my eyes, effective solutions.

In the course of listening to cases, I have been making comparisons between the lessons that have been learned here and the lessons that have been talked about in the other cases presented and there are some commonalities that are significant.

The first thing I am reminded is that none of us change easily, we do not want to change. The only reason that any of us will change is if it hurts too much to stay the way we are. So if you are dealing with a population that does not think solid waste management and drowning in their own garbage is a problem, they are not going to change. The only way they will change is when they see their garbage and drowning in it as a problem.

There are various specific community development techniques that help public participation to increase awareness of the problem in public awareness campaigns. Those animation techniques are the ones that lead to public education, particularly around solid waste issues.

The other thing that struck me was the need for champions. My guess is that the mayor of Bora-Bora is a key to the change there. My guess is that Tuuu Tuaule'alo is a key to the change in Samoa. Until you've got individuals that are willing to champion causes, in my experience, you do not get movement.

I love the idea of the «coalition for change». I think this is a better way of describing things

rather than «multi-stakeholders communities». The issues have been incremental, rather than trying to do something wholesale. Low tact and cultural acceptability are common things that we have heard everywhere except Hong Kong.

One thing that was not highlighted and which I've learned from the work we have done in Central Europe is what is called «functional associations». The case in Nouméa of bringing together four different municipalities to cooperate with a very specific agreement on the big pipe is an example of forming a functional association. When you talked about how difficult it is to get original solutions to a problem, from my experience I know that what is not useless is to spend time on a specific program, a specific problem - and it may be that it is tires, it is cement, hazardous waste - that on specific issues it may be reasonable to form specific functional associations between two or three cooperating islands, cities or countries. That leads to other things. My guess is that Noumea, having done the big pipe, those four municipalities may be able to cooperate on solid waste management in an easier way. We found out that in the Great Vancouver Area, we have 22 municipalities that have learned to cooperate. They did not learn to cooperate because somebody said, «you should have a functional association», but because they had to deal with sewerage, then they had to deal with water, then with solid waste and now they are dealing with transportation. But all of those things came out of very specific reasons for cooperating.

If you are going to change people's attitudes and you want to do it fast, start with the children. In two years, you can change people's minds, if their children look at them and say, as in Thailand, «Do not pollute the river, Daddy» or in solid waste management «Separate at source», those very effective programs happen if you start with the children.

Jing-sen Chang

I also come from an island. Compared with the mainland in China, we are a very small island, but compared to the islands of the Pacific here, we are a big island. As an island, we are always thinking about what «sustainable» means for us. The idea has changed during the last three years. Compared to this case, for the water supply, in Taiwan, we have plenty of rainwater except for the drought last year. We changed our minds, we cannot develop more resources. We should emphasize on the conservation of water and the recycling use of water. We used our investments to reduce the leakage of the water supply system and not on building more dams, reservoirs.

In waste management systems, we went through 3 stages, like the Fijis' case: dumping, then landfills, and then incineration plants. We have now 36 incinerators in Taiwan. We over-invested and we do have problems of over capacity as we now do not have enough garbage to burn. So people asked the government to change its ideas on waste management. People think that waste is a symbol of inefficiency in the use of resources. As a small island, we have limited resources, our water is limited and our natural resources are limited, so we should reduce the waste to promote the efficiency of resources use. People think that we should not dispose of any waste and ask the government to propose a new policy towards a zero-waste policy. That means that all the waste should be eliminated and all the waste should be recycled within the next 20 years, so it has been put on the policy agenda. So here we can see that we share many ideas with our other island brothers.

Joël Allain

I wanted to thank you for giving us this opportunity. For two reasons.

The first one is that I am a founding member of the PECC, a member of the team that worked so that France, through its territories, could participate to PECC. I am thus very happy today to be with you and share this problematic of sustainable development of cities.

The second reason: You were speaking about the private enterprises not expressing themselves on

these issues. So I'd like to offer you my double testimony: as islander and as professional working in public services for the last 30 years, in Polynesia, New Caledonia... I've had to work on the Wallis and Futuna files, I've negotiated with John Chaniel here the UNELCO water contract... So these are subjects that I know perfectly well.

I also heard you say that private companies were not necessarily interested in small islands because they did not generate profit. I must say that if they do not always generate profit, they always generate experience for the larger situations we are facing. From that point of view, we are very sensitive to the requests that can be made asking us to look into the subjects that could be proposed to us as partners.

I would like to insist, because it is absolutely not the intention of our enterprise to get involved instead of and for the governments. Governments decide policies and we are at their side to execute their objectives in the field of public services to the cities.

The points I wanted to insist on at the end of the meetings are that although an islander myself I've learned a lot from the discussions we've had. I also wanted to say that we are paying the high price of modernity. Everybody says so, the amount of pollution produced is directly linked to the revenue per capita. This is a constant, up to a point. Only, when revenues are very high, then one starts to de-pollute. It's only at this very high level of revenues that the problematic of de-pollution appears. In our islands we are somehow living the beginning of a certain type of modernity and I've noticed that the examples, the experiences presented here, were done in general by countries that have a - I hope you'll excuse me using this word - strong power. It's true that there is no success without a strong will and without a strong power. There is no more success either without a modern and performing administration. I must say that our concerns today are passed on in many states, many territories thanks to a performing administration. During my 30 years experience I have seen the level of expertise of the administration of the countries and territories of the Pacific climb at an extremely rapid pace.

The last element I would like to bring out from these two days is that, a few years ago, you never heard anything about the problematic of environment. A few minutes ago you were speaking of children but ten years ago, never was this problematic mentioned in textbooks. Today, no textbook can decently be printed without this problematic being mentioned and I would also like to insist on the fact that the coming generation must be totally conscious of environment issues and of the dangers of a bad management of a certain number of issues linked to this environment problematic.

Speaker

I represent the government of New Caledonia. I listened to all those of you who spoke about simplifying things. It's true that things must be simplified. To come back to public awareness, information campaigns aimed at children, it's one of the easiest, one of the most realistic and feasible thing to do. And it must be done before anything else. After that you can have the very technical speeches, but I agree with what has been said about sensitizing, informing households, mothers, women... the role played by women regarding wasting water and waste disposal. Here in Nouméa a few actions are undertaken by children. A month and a half ago the children picked up all the waste lying around on the roads. It may not be much, but it is very important. Teach the children to clean their house. Let's first educate the children, then we can discuss waste management and ways not to waste water with technicians. Let's stop using potable water to clean our cars, for instance.

Chris Kissling

I was taken by a comment from our friend from Canada, talking about functional associations. The problem of hazardous waste was mentioned. If we can somehow isolate this and remove it from the waste stream, then maybe a collective Pacific Islands solution, just looking at that as a single type issue, that may be something worth pursuing.

Having being in charge of the transport task force of PECC, I am aware that, from many previous business in the Pacific Islands in my own research programs, that there is an imbalance in trade, and in volume. Maybe, in terms of shipping services, there is cheap space that could be made available on some of the trading vessels to actually collect up and bring hazardous waste to a location which is determined and which can deal with incineration. On that, you might also collect used tires that are no longer needed and bring them likewise to a place where they can be used in the cement manufacture.

When I heard of that discussion, I was reminded immediately of one of my own Master's students who was a ship officer on one of these cement vessels in New Zealand. He saw the opportunity of collecting used tires at the main ports with that vessel, taking them as a back load to Westport and using them as fuel stock in the cement making process. The company is concerned and is interested and has helped fund some of the studies. It has not become a reality yet, unfortunately he was the champion but he died. But he has left a legacy of an idea. In the Pacific Islands context, perhaps it is a single issue-type of project that needs to be investigated. From that, maybe some other cooperative efforts for arrangements could flow. So I am making a plea here: in looking at the issues in case studies for particular cities and towns that we have been looking at, and now that the commonalties have been raised, maybe there are some collective solutions for some parts of those problems, and that's worth undertaking further investigation.

Gaston Tong Sang

I think that in all that we've heard during these two days there is a small touch that has its importance in this process, that of culture. We've talked a lot about techniques, financing, social issues, economy, even institutions, but very little about the culture of the people of a region, of an island. We mentioned Samoa, Vanuatu, Fiji, French Polynesia but, even though we have common roots, I think that the cultural aspect of problems is important.

When I hear that there is no political will and that that is the reason why our projects can't go ahead, I naturally take the defense of the political decision makers. I think that if we want to help the decision makers, those who carry the projects, we must also give them the means to do it. Generally, the politician cannot move ahead, doesn't want to get involved, because he does not have enough elements that take into account all the problems to decide. Often, after my election, I discovered tons of papers in my predecessor's office. In fact these papers were technical reports that had been submitted to him: the master plan for waste, the master plan for water... but that led to no decision simply because the mayor did not have the capacity to read these documents, because there were no synthesis. The problem had not been simplified, synthesized enough for him. In Polynesia, 60% of the Mayors left school at the age of 12. I am lucky to have been to university, I understand certain things and I always try to pass the message down to my population knowing that more than 80% of this population left school at the age of 12. You must put yourself in their shoes and explain things using their own words. I think this is very important and if I have just one message to hand out to all of us here it is the following: of course we have to produce reports but, in the end, we must know how to produce documents that can be used by the person in charge of taking the decisions.

And I wish to thank the lady who spoke about education. Let me tell you a story. I took my municipal council on a trip. I often go and see the experience of others and I chose New Zealand and Australia. Looking for solutions to our problem of environment, I visited those countries and I found them very clean. I thought to myself, they've found solutions to their environment problems and I still haven't. And we went through a great many cities, we visited landfills, dumps, plants - there are no incinerating plants in fact - to see the system set up by the national authorities. All this to hear, at the end of our trip, and even all during our trip, people saying that it was in school that they had launched the first action in favour of environment conservation. I thought that the Anglo-Saxons knew about this problems at birth, that it was inbred in them. I was told that not at all, that it was at school that everything started. This is where I said to myself: I'm going home right now, I'll go and see my Education Minister, we've got to start immediately, without loosing any time.

I also wish to say that we fully appreciated this meeting, these encounters. I very much appreciated meeting all these experts, all these observers, technicians, representatives of the political body... and I find that it is a pity that there are here so few members of the political body. They would hear directly from field actors the issues brought up.

I will end by mentioning one of Gauguin's paintings where you can see lots of people, animals, dogs, even horses and which is titled: «Where do we come from, who are we and where are we going to?»

Paul Jones

The last two days have been very interesting because of listening to the other case studies, because of the diversity in the development that is happening, specially here in Noumea or in Bora-Bora. What is important to me here, coming for the first time in Nouméa, seeing such a high quality of amenities, a high level of infrastructures and services, just how great the golf is, the standard of living and quality of life in the Pacific. And when I think of the figure given this morning, almost 50% of the population living in urban areas, we are clearly dealing with major problems here.

I'd just like to sum up by giving a couple of key points: I think the way it goes as we try to point out, it's come through experience in different ways, it is clearly the integrated urban management approach that is the way to go. We talked about the reasons why. The issues are not single-faceted, they are multi-faceted, so we cannot look at them vertically, we have to look at them laterally and across. From that point of view, all the things we talked about this morning, the multi-sectors, the multi-stakeholders, multi-disciplinary, multi-solutions and most importantly the total environment clearly is the way we must look at these things.

Secondly, I think in all the case studies, local solutions must be sustainable. Whether we talk about landfills, wastewater, and again all the case studies stressed the commonalties (the institutions, the capacity building, the political support... all these issues they underpin all of these solutions), but most importantly, sustainable local solutions must be the way to go. I think that the Fiji landfill study brought out clearly this point.

Thirdly, my last point refers to the good work carried on at SOPAC about natural hazards, vulnerability, risks, and all the data that's available. In that context I think there is a lot of planning information which should be used as tools for planning support and somehow we need these to be integrated in the whole planning framework for the Pacific.

Lye Lin Heng

I would like to take us just a little bit out of sustainable urban services. I'm just looking at the fact that it was made quite clear that urbanization is a reality in the South Pacific. I feel that it is important to learn from what the Asian cities have done and learn not to do the same things.

First, of course, we've talked in great details of sustainable urban services, but a city cannot be sustainable just looking at urban services. The quality of life in the city is very important and there are just two things I'd like to say.

Firstly in terms of your architecture, do not follow what the urban cities do like in Singapore where we plan, because we have a lack of land space, very compact buildings and it's almost difficult to find any breeze coming through and so we have to live with a lot of air conditioning that takes up a lot of power. So, as far as possible, in terms of architecture, perhaps the native architecture is best. Bring in the natural breezes, lots of windows... and that has its impact on the environment.

And secondly, I was reading the background books to the South Pacific and I found that a lot of the biodiversity has been lost, in particular a good example would be the loss of all the sandalwood trees that were sent to China to satisfy the demand for sandalwood for example. A city needs to preserve its birds, its plants, its biodiversity. A lot of the Asian cities are just concrete jungles. It's important that, as you are developing, you take care of natural environment. Try not to cut down the trees and the plants unless absolutely necessary. In Singapore now we have realized we have cut down a lot of trees and of course a tree is not just a tree, it is a home to many creatures, birds, squirrels... In Singapore, now, we've started preserving certain trees as heritage trees and we have certain roads that are heritage roads where you cannot cut down any tree. But we have lost a great deal. And, it's just a suggestion, but in the process of urbanization, it would be good to bear this in mind.

I find that the construction practices are extremely damaging to the environment. Construction companies just go right in and they rip up everything, every tree, the grass is ripped up, every plant is cut down and in Singapore they just think «well, you know, when the building is up we'll just replant». This of course adds to the cost. You have to pay for the new plants but the greatest cost is inestimable: the loss of the biodiversity that they have already cut down. I just want to integrate this with sustainable urban services. The need to preserve your natural environment.

Alf Simpson

I just wanted to introduce a new thought. My understanding is that PECC is a private sector input or response to APEC. When we were talking about multi-faceted solutions, new way of working cross-sectorially, of dealing with things in a holistic approach rather than putting things in little boxes. We talked about cities with regards to services, and particularly water services, and we have seen how it is all inter-related, water services relate to waste water, and waste water relates to pollution and so on and so forth. And some of the solutions are then related to the poverty issue. If you can't address poverty, you can't afford the solutions and you if you can't afford it this gulf that exists between those who can and those who can't address their problems grows wider. It is all interrelated. APEC is a grouping of Pacific Rim countries bordering the Pacific Ocean. We in the Pacific Island countries are located in the middle of this same ocean and are dependent for our survival on this Pacific Ocean. But the state of the ocean will not be affected by the minute impact of what the island countries do. It will be determined by the rim or APEC countries who by shear size and population will influence the state of the ocean. If the rim countries over-exploit the resources of the Pacific, if the rim countries pollute or use the ocean as their waste dump then we all lose. The issues we have talked about become marginal if not irrelevant when the environment on which we all depend is destroyed. The maintenance of a healthy ocean is the first non-negotiable assumption required for sustainable development in the Pacific island countries. I trust that PECC might carry this message to APEC.

Enrico Strampelli

I would like to add a point to this interesting discussion. We should not forget that one of the peculiarities of the Pacific Island Countries is a general lack of human resources, due to the scarce population. This lack of human resources is aggravated by the fact that, in order to get tertiary education, the pacific islanders often refer to Australia and New Zealand. And it is very common that they find a job there. So, the combined result of a scarce population and of a brains exodus is that it is very difficult to have at disposal adequate human resources able to manage productive activities.

Geneviève Dubois-Taine

Many thanks to all of the speakers who have made this final discussion very interesting: as Alf Simpson said, I believe that a great many countries have a lot to learn from the Pacific Islands. They are small countries, they are starting their urban revolution and due to their small size and their enormous problems, they help us define the most realistic ways to solve them.

In fact, this third seminar's last discussion, enriched by the main items delivered to introduce the debate, essentially highlights issues related to governance: «we know what to do, we just do not know how to get it done», Robert Guild said. And what's more : «the institutional structures that we either have or do not have, determine whether we are going to be successful or not».

The first major idea that arises from this discussion is that of «integrated urban management» as described by the Samoan team, with frameworks that make sense to people, that are easy to explain to everyone. Many lecturers insisted on the necessity to address very simple messages, to explain very clearly the problems, so that the Public Authorities can easily take the decision in a process in which the main ideas can be shared by all the stakeholders.

The second major challenge is related to education. There is a strong force against change. So, if the essential political wills are clear, if the environmental and social stakes are clear, then the population can understand and adopt them, and thus things can change. And education is the way to go. Children and women are the best vectors to make change possible.

All the success stories we analyzed are spearheaded by a leader, a champion: usually the mayor of the town. Without a leader, with a clear view of the situation, with the cultural and historical background of the city and of the country, with the authority to fix ambitious and realistic objectives, things are almost impossible. The discussion, along side the importance of having leaders, stressed on the advantage of having a «coalition for change», that is a particular form (and a much more efficient one) of the «involvement of the population». Leaders plus coalition for change are «leading ingredients».

The «time» dimension was also very often mentioned. Giving «time to time», finding the appropriate moment to propose or decide something, moving ahead step by step, are important tools for realistic approaches and implementations.

The last major challenge is that of the right area to solve the problems at the right scale: it is particularly true for waste management. Some examples were given of cooperation between some municipalities or some islands to solve their problems, to address the question at the right scale and also to set up financial redistribution between the different areas. These federations are generally born in order to solve a particular problem such as water supply, or cross subsidization between different islands concerning electricity or waste management. After being set up, these federations of Public Authorities become a very efficient tool to manage all the urban problems.

These discussions and the ideas that sprang from them have strongly enriched the ideas stated at the beginning of this seminar. Once more, thanks to all your contributions, things move ahead and each seminar finds its own identity.

I am really grateful to all of you, Chairs, Lecturers and Participants, for all the work you have produced that made this seminar an enriching event. We hope it will help develop exchanges between the Pacific Islands. It certainly brings its own brick to what we are building inside the PECC Sustainable Cities Task Force.

Jacques Leguéré

We have now come to the end of this seminar and I wish to thank you Geneviève for putting up this third Sustainable Cities Task Force seminar here in Nouméa. I have been able to see with my own eyes how interesting and fruitful your seminars can be. I was particularly impressed by the quality of the participants you have succeeded in bringing together and by the fidelity of those who follow you since the beginning of your action. I participated in all the debates and saw how important exchanges can be for all, and specially for us all here in the islands. I hope we will be able to maintain and feed these exchanges.

I also wish to thank all of our sponsors, the High Commissioner of the French Republic in New Caledonia, the Government of New Caledonia, the Assembly of the Southern Province, the City of Nouméa, the French Agency for Development, the ADECAL and the enterprises COLAS, SUEZ and VIVENDI WATER without whose support we would not have been able to put up this event. And I want you all to thank the interprets who have done a great job «understanding» us.

I am also very happy of the success of this seminar which augurs well for the series of three seminars the PECC New Caledonia will host during all of this week.

Once again, all my thanks. ■

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