Incubating Ideas for Regional Land Use Planning in India

Conference report
29 – 31 October 2018
Chennai, Tamil Nadu

german cooperation
DEUTSCHE ZUSAMMENARBEIT

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Published by:
Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH

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Project description:
The Department of Land Resources (DoLR), Ministry of Rural Development (MoRD), Government of India, and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), are jointly implementing the 'Land Use Planning and Management' project in the two states of Odisha and Tamil Nadu with an objective to 'apply instruments of integrated spatial and land use planning in India' under the framework of the Indo-German Technical Cooperation.

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Photo credits/sources:
GIZ

On behalf of:
German Federal Ministry for Economic Cooperation and Development (BMZ)

GIZ is responsible for the content of this publication.

New Delhi 2018

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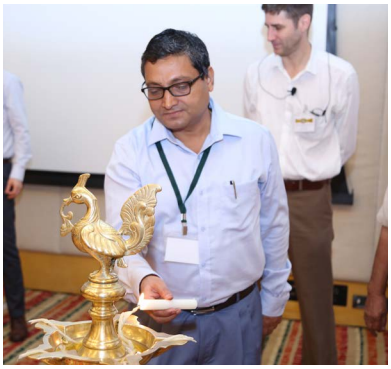
Introduction

Spatial planning in India is still mostly limited to the urban agglomerations. With a strong urban growth a new type of urbanism arises, that seems to be neither rural nor urban. This so called 'peri-urban' growth encompasses a large amount of valuable land, and if not regulated, causes high costs for the construction of public (technical) infrastructure and leads to conflicts with other land uses such as agriculture or with environmentally protected areas. Consistent and systematic spatial planning at the regional level can be an important contribution to plan the rural-urban linkage.

The Land Use Planning and Management (LUPM) cooperation project of Department of Land Resources (DoLR), Ministry or Rural Development, Government of India, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and the State Governments of Tamil Nadu and Odisha works to strengthen the culture of a democratic and integrative spatial planning in India and test several regional planning approaches. Being the final year of the project, there was the idea to make use of the learnings and achievements so far and say :



'PLAN OK PLEASE'

to state partners and a wider planning community of India. Is the plan OK? Are we ready to move a step ahead and to implement what we have planned? What are the challenges that have to be addressed and what can we learn from other states and other countries? 'PLAN OK PLEASE - Incubating Ideas for Regional Land Use Planning in India' was trying to enable discussions and to find answers.

Under the project, state policies on land use are drafted, demonstration plans are developed and capacity building programmes are implemented. The draft results have been presented to the audience and were discussed for improvement.

The conference was moderated by Mr Stefan Gebert, who gave a brief introduction and invited Dr S. K. Kulshrestha, Dr Sugato Dutt, Mr Georg Jahnsen, Mr Chandrasekar Kumar and Mr Christoph van Gemmeren to light the lamp and commence the conference.

Agenda

Monday 29 October 2018

09:00 Arrival and Registration

10:00 **Mr Georg Jahnsen**: Incubating ideas for regional land use planning in India

11:15 **Mr R. Parthasarathy**: Models of Regional Planning

12:00 Questions and Answers

14:00 **Mr Christoph van Gemmeren**: Düsseldorf: Land use planning on a regional scale

15:00 **Mr Jacob Easow**: Regional planning system of Kerala. Examples from IDDP Kollam

16:00 **Dr S. T. Puttaraju**: Goa: Implementation of acts with reference to regional land use planning

16:20 Fishbowl

16:50 Closing remarks

Tuesday 30 October 2018

09:00 **Dr Sugato Dutt**: Approach to land use policy, Tamil Nadu

09:30 **Dr S. K. Kulshrestha**: Regional land use conflict resolution in India

10:00 **Dr Asha Rajvanshi**: Environmental concerns linked to hydropower sector: The relevance of SEA

10:30 **Mr Jürgen Wittekind**: Planning processes and the role of the planner

11:30 Fishbowl

14:00 **Mr Ranjan Mallick**: Cross-sectoral land use planning. Regional plan preparation in Ganjam, Odisha

14:45 **Dr N. Sridharan**: Cross-sectoral regional land use plan preparation in Coimbatore, Tamil Nadu

16:30 **Mr Georg Jahnsen**: Closing remarks

Wednesday 31 October 2018

09:00 **Mr Thomas Kiwitt**: Governance Model of Stuttgart Region, Germany

10:00 Moderated Working Groups

14:00 Site visit to Mahabalipuram

Moderation: Mr Stefan Gebert

Mentimeter

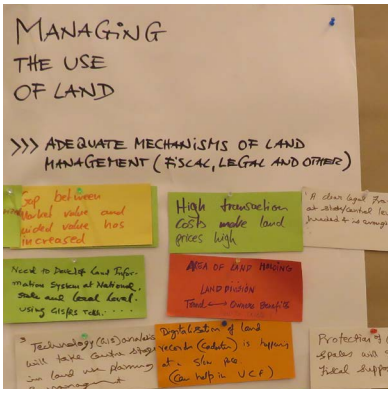
Throughout the conference, the online interaction platform 'Mentimeter' was used to save all upcoming questions and comments on the topics discussed. This allowed all participants to post questions and responses during the various sessions of the entire conference. Mentimeter also facilitated immediate graphical representation of quick surveys, such as shown in Figure 1. Graphical representations were displayed in real time in between sessions.

Questions and debates have been taken from Mentimeter and then combined with minutes, allowing for more thorough documentation of the conference.

Figure 1 What is the main topic you are currently working on? (Extracted from Mentimeter)

Day 1

The first day's objective was to focus on THE PLANNING, kicking off with an introduction from the hosts and partners on endeavours and expectations of the initiative for regional planning. The purpose and mandate of an institutional structure for regional planning was presented through case examples from India and abroad, followed by discussions on the planning process and role of the planner at regional level.



Welcome to the LUPM Project

Mr Georg Jahnsen

Mr Georg Jahnsen works for the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH in India and is the project manager of the Land Use Planning and Management (LUPM) project.

Key points on the role of GIZ India and the LUPM project:

- GIZ is owned by the German government and works under the Indo-German Cooperation.
- The LUPM project has been ongoing since 2016 with 4 partners/stakeholders, namely GIZ India, the Government of India (Department of Land Resources), the Government of Tamil Nadu and the Government of Odisha. The commissioning party of the LUPM project is the German Federal Ministry for Economic Cooperation and Development (BMZ).
- The project has a focus on the worldwide issue of urban sprawl, which leads to loss of landscape and agriculture, including at the regional level. Hence, issues of peri-urban growth can only be tackled by agreeing to plan at a regional scale.
- The project deals with the term 'land use planning', where 'land' is defined as the base for everything, 'use' identifies all possible activities and 'planning' forms the base to avoid land use related conflicts. Plan types differ at various stages including: 'visionary planning' at state level, 'corridor planning' at interstate level and district level, 'spatial planning' at city level and village level as per the Indian constitution. However, district level planning has to be enhanced.
- The governance system in India is hierarchical with one national level government, under which 29 state governments and 7 Union Territories function. There are 640 districts under the state, within which 8,000 cities or municipalities and 6,70,000 villages thrive. Here, a district equates to a region. Land use spatial planning ensures to link the various scales of plans with the different sectors of governance.
- For this purpose the project has identified the Ganjam district in Odisha and the region of Coimbatore, encompassing four districts (Coimbatore, Erode, Tiruppur and Nilgiris), as per the acts governing the two states.
- The project engaged with the two states through several working group meetings with a number of experts, and resulted in arriving at four important outputs for holistic regional planning: First, a 'policy' for efficient land use planning at the state level; second, a manual with 'norms' for regional planning; third, 'cooperation' to create an ideal institutional/organisational structure; and finally, 'human capacity development' through conducting training for all three tiers of the governing system (for which an exposure visit to Germany has already been done).

Q&A session

Q1: What would be the suitable scale for DP/cluster land use planning?

Mr S. T. Puttaraju, Chief Town Planner of Goa, clarified that land use planning cannot be defined with a predetermined scale, but rather must be taken based on the extent of the area of district/ panchayat that is to be planned. This was also agreed upon by Dr Sridharan.

Mr Jacob Easow, retired former town planner from Kerala, added that since plans are prepared on a GIS platform, the scale becomes no longer important. Further for regional plans, since the plan is not linked to zoning regulations (except in case of Goa), the scale would be irrelevant. However, if zoning regulations are linked with regional plans, then a 1:50,000 scale would be suitable. But, in case of a local plan (like master plan), there is a need to control building permissions/regulations etc. Hence, there is a need for detail at the scale of 1:10,000.

Q2: What is the purpose of this workshop? What is to be expected at the end of this event?

The purpose of the conference would be to encourage maximum interaction amongst the participants who are closely involved with regional land use planning. The conference would be focusing on three main topics, namely: (i) The Planning: looking into the endeavours and expectations of regional planning in various states (ii) The Sectors: the processes and methods taken into consideration about integrated spatial planning, by interacting with representatives from various sectors (iii) The Governance: presentation of existing models with specific emphasis on authority levels, financing mechanisms, mandates and staffing; thus arriving at suitable models of governance for the states of Odisha and Tamil Nadu. This workshop is just a route/field for interaction between the 3 verticals of discussion and engage the practitioners who will give their opinion and real time experiences to enhance the system.

Q3: How do you plan to take your agenda to other states?

Mr Jahnsen confirmed that the project currently is not mandated to be taken to other states of India.

Q4: What is the timeline of the Land Use Planning and Management project and expected key deliverables? How do you plan to mainstream the lessons to other districts?

Mr Georg Jahnsen clarified that the project would be delivering a land use planning policy in both states along with norms for regional planning in the form of a manual. This would have to be integrated with land use plans at the regional level, and to be completed by end of May 2019. It will also include capacity building trainings. Later, if the government agrees, it could be upscaled.

Land Use Planning and Intergovernmental Finances for Implementations

Dr R. Parthasarathy

Dr Parthasarathy is the director of the Gujarat Institute of Development Research in Ahmedabad. He was, until recently, a professor at the Faculty of Planning, CEPT University, Ahmedabad where he taught Natural Resources Management and Environmental Economics.

The sources of this presentation are largely from the five year plans, the 15th Finance Commission, thesis and report works from CEPT University.

- Models of regional planning have mostly been taken up by identifying regions either as (i) administrative regions, (ii) investment regions, or (iii) special regions.
- The history of regional planning began with addressing natural resources, thus confining its role to determine ways and means of developing the natural resources of a region.
- India has an hierarchical system of planning at the national, state and local level. The earlier bottlenecks of spatial planning system in India were that investments and plans were clear with the Planning Commission playing an advisory role and the Finance Commission did not take up an active role in spatial planning and did not extend for urban local bodies.
- Infrastructure bottlenecks can be found in natural resource planning, area planning and backward area development plans. Investments have to be made viable (income and returns are very low). Backward Area Development depends predominantly on private investments.
- The examples from various states of India give a clearer perspective on the financial models practiced in the country:

Example 1: National Capital Region: The region expands to 3 or 4 states, and hence the funding is contributed by all the states and the National Capital Region Planning Board is completely responsible for the utilisation of these funds.

Example 2: Matheran Regional Plan, Maharashtra: The region was identified based on the eco-sensitive nature of the area and the purpose of the plan was to prevent ecological damage. Although the area was defined, carrying capacity models have not been developed in recent years. Hence, the finance pattern was not defined, the investments were carried forward by authorities for developmental purposes, rather than towards the eco-sensitive plan.

Example 3: Tribal area development plan: This plan was clear, as the literacy, health and livelihood of the tribal area was focused towards contributing to provide returns for the investment. But the issue was that the equity between the Scheduled Tribe groups was not in place, which led to inconsistencies in the implementation of the plan.

Example 4: Tamil Nadu: The state has well codified laws with funds and regions that were defined in the 1970s. However, the pattern of fund flow and use of finances was unclear.

Example 5: Odisha: This state also seems to be facing the same issue with district planning. Identified regions were not clear (issues with infrastructure bottlenecks).

Dr Parthasarathy suggests that while smaller scale plans and priorities take the front seat, regional planning seems to take a back seat, attributing to the fund flow towards immediate smaller scale priorities such as city level roads, highways etc. Different systems could be adopted to address regional planning and financing models effectively. The key messages of the presentation were to ensure better regional planning from the perspective of efficient financing are as follows:

- In order to identify a region and retain it, it is important to ensure the way funds, fund flow as well as returns are allocated.
- Special Investment Regions/Special Economic Zones as in the case of Kutch could be identified as regions where the tax and non-tax policies are different. If both of these are not aligned, returns cannot be identified. Therefore, strategic priorities need to guide the planning exercise.
- Although the 73rd and 74th Constitutional amendments highlight the importance of fiscal decentralisation, a funding mismatch continues to exist. Hence, there seems to be a clear need for a hierarchical structure for fund allocation and flow.
- New regional financial models like TDR, seem to be an enabling mechanism. 'PPP' models are still not extended to other sectors apart from 'roads'. Backward development zone, CRZ etc. have no specific funding.
- Demarcations of regional planning areas are most suited to be carried out based on homogeneity of land and homogeneity of people to ensure minimal conflicts while zonation. However, it is important to question the possibility of identifying a region of smart cities.

Q&A session

Q1: How is a region defined and what could be the rationale for determining the same?

A region could be defined based on 3 different aspects: 1. homogeneity criteria, 2. zonation, 3. the area of investment and returns, although it is not about the fiscal tools alone. The Government of India and state governments have different tax structures and incentives and hence, it is important to determine the investment, trunk infrastructures etc. and the return from such investments. This will ensure that the region sustainably develops and the plan gets successfully implemented. These decisions lie with the state government.

Q2: For projects that are beyond administrative boundaries e.g. DMIC corridors etc., how are these areas determined?

These projects form the basis for regional plans from which Special Investment Regions (SIR) are determined. In the case of Coimbatore and Tiruppur, the scale would be economic, while Tribal regions would look into the social scale.

The presentation of Dr Parthasaraty was followed by a fishbowl discussion which involved key representatives such as Mr Chandrasekhar Kumar, Principal Secretary, Revenue and Disaster Management Department of Odisha and Dr Sugato Dutt, Head, Land Use Division, State Planning Commission of Tamil Nadu. The other participants were allowed to take the fore seat while voicing their questions and opinions and keeping the discussion dynamic and organised at the same time.

Fishbowl Discussion 1: Regions and Finance

The discussion began with the idea of ensuring equitable growth in a region.

This idea extended to the different approach for identifying a region. Different approaches are, for example (a) taking existing administrative boundaries like district boundaries, (b) identifying inter-relationships in terms of transport, economics etc., (c) looking at investments and returns, as suggested by Dr Parthasaraty, (d) natural characteristics, (e) a common vision or purpose as suggested by Dr N. Sridharan.

Dr S. K. Kulshrestha clarified to the participants that it is important to ensure that there is a well-defined implementable framework for the regional plan before identifying a priority for the region. It is hence important to marry the spatial component with the administrative sectors.

Dr N. Sridharan mentioned the case of the National Capital Region where four different states come together and where it is important to identify one particular purpose, so that all stake-holders can identify their role on this platform.

Dr Parthasarathy underlined the importance to understand the specific purpose, but at the same time to ensure that there are directed investments and growth. Therefore, it is important to bring in the distinction between tax and non-tax investments to provide sufficient returns for effective implementations of plans.

The tribal sub-plan cuts across districts and does not exclude non-scheduled people. The feasi-bility was made possible, mainly because it was dynamic by including areas of forest, industries etc. Spatial budgeting allows the reallocation of the existing budget. If the focus is made at a regional level, it is very easy to allocate funds.

Dr S. K. Kulshrestha emphasised that it is necessary to accept that in the national context, a state is a region and a district is a region in the state context. He also mentioned that spatial planning would facilitate in effective budgeting.

The discussion went on to finance instruments for better regional planning.

Mr Sashwat Bandyopadhyay, Professor, CEPT University, remarked that when planning for an ecological sensitive zone or if using TDR as a financial tool, we need to co-operate and regularise land. If a same land parcel is needed by different departments, that land parcel must be looked at as a tool.

Dr Sejal Patel, Professor, CEPT University, explained that regional planning being taken up for the last two generations, the reason being unsatisfactory results of land use planning. There still exists a confusion regarding the distinction between spatial regional plans and a land use plan, and the purpose of a spatial plan. For instance, in case of transportation, people commute from

the urban fringe to the city. Hence, transport facilities have to be detailed. But, these need not essentially ascribe the land use to each parcel. Instead, market actions and leading externalities have to be identified. Planning must move away from traditional land use zoning at parcel level, which is from a comprehensive/conventional plan to strategic plans.

Dr Puttaraju added that there are also no sufficient finance models yet in India, and regional level TDR etc. may not suffice as funds are allocated sector wise.

An open question was raised by Dr Sugato Dutt, State Planning Commission Tamil Nadu: Since the planning authorities have primarily worked on budgeting the non-spatial elements of planning, how can spatial budgeting actually be carried out? Would it be based on activity? (SPC, TN)

Mr Christoff van Gemmeren suggested that unless a vision is prescribed at the national level, the planning process would be difficult at a smaller scale. Comprehensive spatial planning is driven by financing and hence, only when the state decides to allocate funds, the region can direct its plan towards implementation.

Mr Georg Jahnsen concluded that

- there is a need to link national missions with the regional plan.
- the issue of introducing transferable development rights or scale or abstraction in the current Indian spatial planning system indicates the need for using effective graphical representations to simplify plans.

Other concerns were raised with regard to current land regulations and its application.

Mr Chandrasekar Kumar, Principal Secretary, Revenue and Disaster Management Department of Odisha, highlighted that the largest issue with planning is when planners release land without taking sensitive land areas into consideration that are reserved under the law such as Forest Acts etc. The resolution of these conflicts remains a large challenge. He also said that systematic logical decisions need to be taken based on identifying core issues. However, currently the decisions are being taken at the discretion of individuals.

Technologies and mapping

Mr Surendra Sompale, Additional Chief Town Planner, Town and Country Planning Office, clarified that while mechanisms are available to resolve issues of scales and standards with technology, institutional mechanisms need to be prioritised.

Dr N. Sridharan added that the entire realm of spatial planning needs to identify a common platform for people of similar identities by giving simple examples of accessing websites and logging in through straightforward procedures.

Mr Georg Jahnsen explained the concern that there is a misunderstanding between mapping and planning; where planning is the link to the spatial democratic governance structure and maps are representations of where something exists. He added that there is also a need to get rid of information at local level and begin abstraction at regional level. Therefore, there is a need to understand what we need on the plans; because too much information would limit the efficiency of plans.

Düsseldorf: Land use planning on a regional scale

Mr Christoph van Gemmeren

Mr Christoph van Gemmeren works as the Deputy Head of Regional Planning at the District Government, Düsseldorf, Germany.

The region of Düsseldorf is geographically located in Germany and in Europe where different cultures met, influenced and merged throughout the past centuries. The region is identified to be in close proximity to Belgium and the Netherlands. Although the distances are very short, the cultural variety is equally drastic in this region with a catholic setting in Belgium and a protestant setting in Netherlands. There is no uniform 'European way' of planning and therefore the planning differs from country to country as the settlement patterns were influenced by various factors such as religion, government structures and trade that prevailed in previous centuries.

In Germany, regional plans are prepared extensively, and they all fit in very well with each other. A state-wide plan is also made, which makes regional plans much easier and seamless, in a manner where one cannot identify where one regional plan stops and another begins.

Regional plans in Germany are not plot sharp (scale normally 1:50,000) and land ownership is not relevant within the regional planning process. Regional plans are rather simple: only few zones like green belts, urban areas, infrastructure etc. are demarcated. Regional plans are binding to all government authorities but not to the land owners. The aim of the regional planning authority in the Düsseldorf region is to create a common spatial plan that combines all sectoral interests and that does not contradict sectoral plans created by the line departments. The overall challenge occurring in the Düsseldorf region is the high demand on extra settlements, especially affordable housing capabilities.

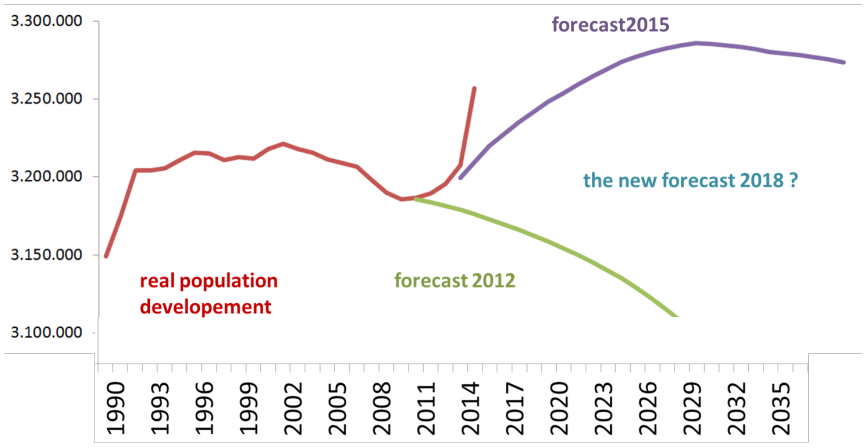


Figure 2: Population forecast in the Düsseldorf region. (Extracted from the presentation of Mr van Gemmeren)

The regional plan came into existence in 2012, when the projection of a declining population trend was made. In contrast to this forecast, the actual number of people living in the region began to increase, and there was a need to address this in the regional plan. This critical topic was therefore taken care of by reviewing the regional

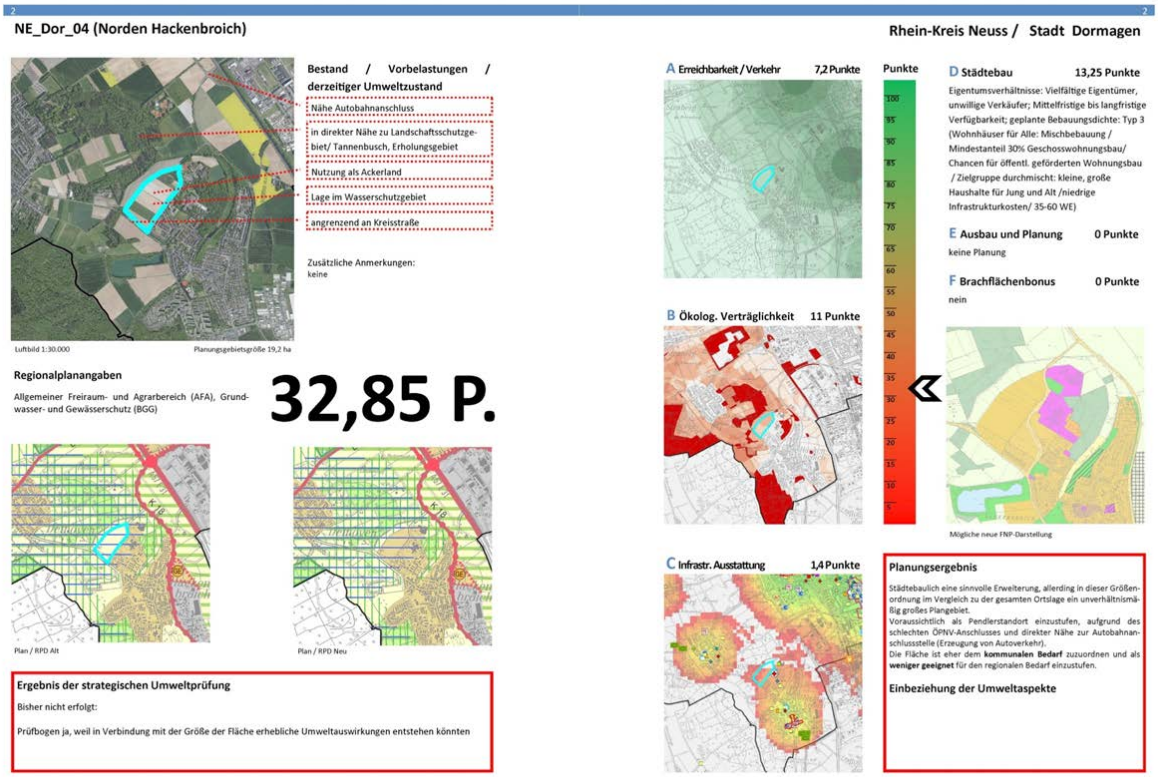


Figure 3: Image capture of the ranking of areas used in the Düsseldorf region. (Extracted from the presentation of Chirstoph van Gemmeren)

plan and making changes to keep pace with the actual demographic development. This example underlines the need of a regional plan being flexible to challenge the real development which can be difficult to forecast.

Development of settlement areas is generally a task to handle at the local level and not at the regional level. Due to the overall need in the region, the topic of housing and new land designation was shifted to the regional scale in Düsseldorf region. There is a high need for affordable housing which is currently on a low activity level.

The process to identify new areas for settlements involved a ranking system of areas as a tool to identify suitable land for housing development based on 20 to 30 different criteria from the categories of

- existing traffic and position in space,
- ecology,
- existing infrastructure and facilities,
- urban design and implementation,
- future planning of railway stations and other infrastructure.

Consequently, for each category the most compatible land uses were identified through graphically prepared GIS maps with colours specified corresponding to the ranking and was extended to all categories. The ranking system helps in conflict resolution and better communication with authorities and stakeholders. While the analysis made is complex, only the concrete ideas are taken to politicians as foundation of profound decision-makings. The ranking needs to be simply understandable and even needs to be visually simple to understand. Within the process, communication is critical for bringing together the stakeholders and consensus building.

Mr van Gemmeren concluded that the region Düsseldorf needs more areas for settlements in the future according to the population projections. The challenge is that the municipalities are not able to designate more areas for settlement construction due to other competing land uses and missing space. The regional authority supports the decision-making for new development areas based on land analysis at the regional level.

Q&A session

Q1: While a regional plan is required to be abstract (as per the presentation), decisions on housing typologies in urban areas (of a much smaller scale) are also taken at a regional level. How can an abstract plan that only identifies urban areas at the regional level define the nature of development in the urban areas?

There are no rules or regulations that are specified in the regional plan regarding what type of uses need to go in which area. The region is quite loosely planned. The maps can be accessed through open source and is easily available to all as it must reach everyone. But, conflict resolution or identifying zones for specific purposes must actually be brought in into the policies.

Q2: The presentation identifies a 'Category C' which gives a certain weightage for areas accessible to social infrastructure. Wouldn't this be a local level decision? How can it be taken up at the regional scale? Is the method adopted in this regional planning process a live tool to make a decision?

The analysis at the regional level are forecasts. Also, at the national level there are many aspects which are incorporated into the analysis at the regional level. In almost all cases, the decision of weightages that need to be allocated for each category also becomes political. Hence, the weightages are taken with consensus with municipalities, that actually implement the plans.

Q3: Could the drastic change in demography be clarified again?

This was an unexpected situation that since I started working in 2002 the region seemed to be entirely sure that the population number is going to decline, but suddenly it so happened that the population increased. Therefore, we began revising the plans based on the new changes.

Q4: Were the weightages that were identified based on a statistical parameter or is it based on discretion of the authorities? It can be observed that the plan and the google earth image match. Are there incentives/levies for following/not following the plan?

A GIS based calculation system is undertaken for the regional planning exercise, and through this it is decided that roughly 80 per cent of the area would be used and the plan is kept relatively flexible. Hence, this model cannot be used at municipality level. In this case, the information is taken from municipalities and translated into the regional plan, and abstracted. Once the municipalities receive the Regional Plan, this becomes a blueprint that has to be adhered to.



Kerala Model of Regional Planning: IDDP Kollam

Mr Jacob Easow

Mr Jacob Easow, retired, former Assistant Chief Town Planner from the Town and Country Planning Department of Government of Kerala, was involved as the regional city planner in the Integrated District Development Plan (IDDP) of Kollam District, Kerala.

The planning system is based on a state perspective plan which is drafted once in 20 years. Under this, there is a perspective plan by the District Planning Committee (DPC) or the Metropolitan Planning Committee (MPC). Further, there are execution plans made for every 5 years.

Article 243 specifies integration between urban and rural along with integration of infrastructure and environmental concerns. The planning system in Kerala has four categories: a state vision, a regulatory component, a state perspective plan and a development component.

For this purpose, Technical Action Groups (TAG) were formed. For Kollam Regional Plan, the TAG had 19 subcommittees heading 19 different sectors. Each subgroup under TAG is headed by an elected representative. The group consists of NGOs, concerned departments and external sectoral experts. Planners did not make in-depth analysis of the sectors, but the various subgroups

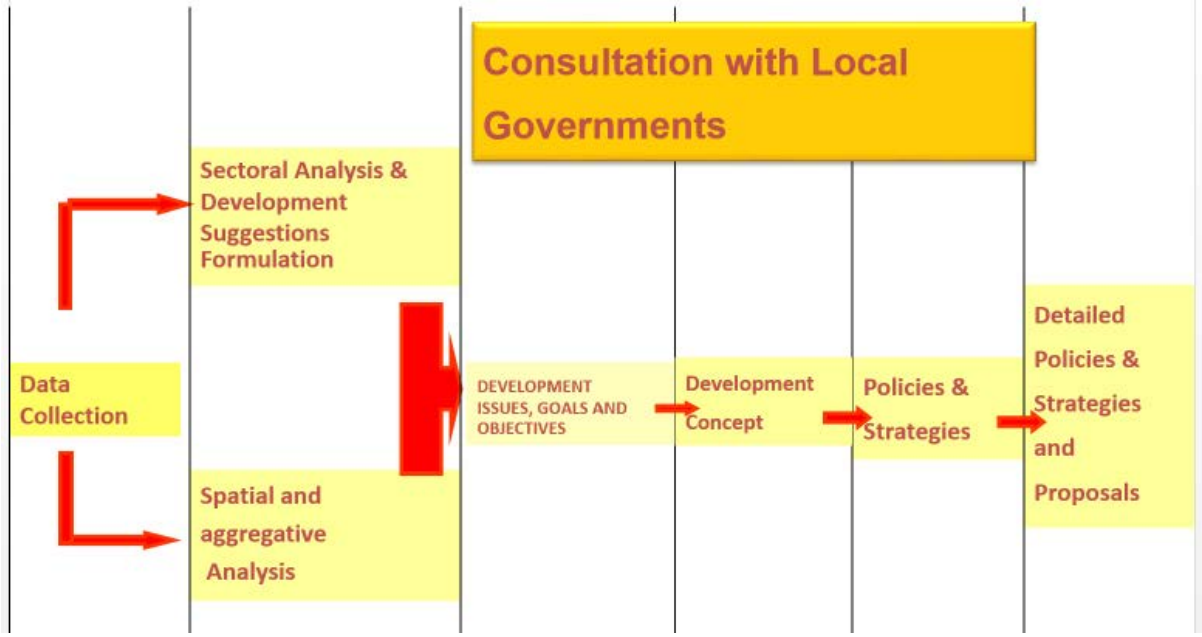


Figure 4: Planning process for the regional district plan, Kerala. (Extracted from the presentation of Jacob Easow)

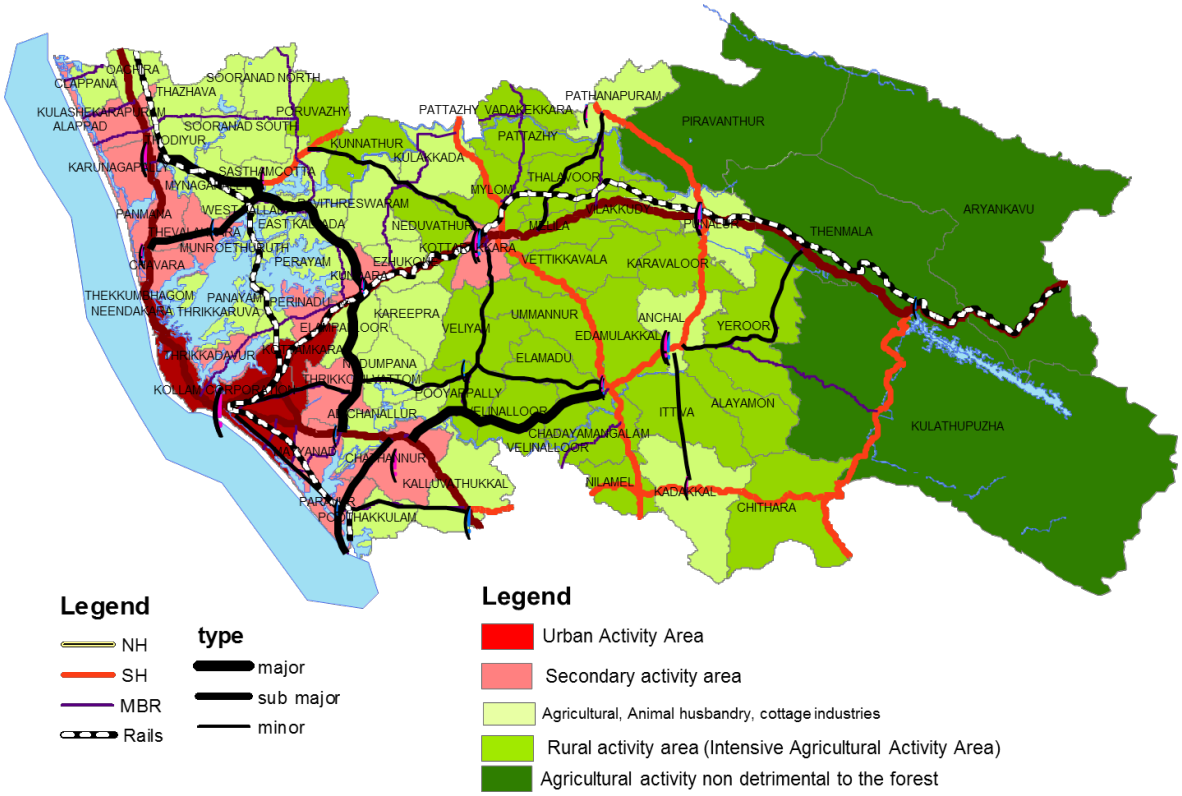


Figure 5: Regional Plan IDDP, Kollam. Extracted from the presentation of Jacob Easow

carried out this process.

Sectoral parameters are seen in totality as sectoral plans have to be integrated. All these individual sector plans are later combined together to form the regional plan.

Q&A session

Q1: How long did the planning process take?

It took almost 3 years to completely prepare the Integrated District Development Plan (IDDP), Kollam. This was the first attempt in participatory spatial planning in India and hence, we had to start from the beginning. We designed guidelines, a handbook, toolkits, customised software, etc. In addition, a wide range of training on spatial planning was necessary to prepare the plan. Now it is possible to complete a plan within 12 to 18 months as guidelines, handbook, toolkits, customised software etc. are already available.

Q2: Can we apply this to less literacy level states like Odisha?

Yes, it is possible. For this, a step-by-step approach may be adopted for such districts in India. In this context, we have developed a road map, with examples and models along with templates for each milestone for the preparation of district plans which can be replicated anywhere in India.

'Orderly growth of the urban centre is dependent on the kind of organic linkage it establishes with its rural hinterland'. This indicates that planning of villages and towns are to be complementary. Therefore, a move of harmonising urban and rural centres of an area is considered as a move of planned urbanisation of the area. This can be achieved by preparing a District Urbanisation Report (DUR). It is the first milestone in the road map leading to the draft Development Plan as laid down in the constitution. The DUR defines the future spatial structure of a district, which is formulated by integrating hierarchy and activity pattern of urban and rural settlements and the connectivity between them. The spatial structure of a district will act as a frame for the orderly development of urban centres and their rural hinterlands subsequently leading to a planned urbanisation.

The District Spatial Plan (DSP), the next milestone in the road map, is designed as a synergistic form of the DUR, since as a plan it is congruent to a single unified physical design for the district through setting development goals and objectives and formulating the development

concept of the district. DSP will frame the general policies and strategies and streamline directions of development of the district. The development directives of DSP are carved in the spatial platform through the synthesis of findings of the analysis over the spatial structure based on secondary sources of data. The DSP will streamline the directions of development of the district by providing a framework for development as well as future planning of the district. However, it lacks the sectoral studies as coordination of various line departments remain as an uphill task. IDDP of a district becomes the outcome of a series of stages of actions with intermediate products at each stage. The formulation of spatial structure of the district is the first stage of preparation of an IDDP and the same can be considered as the first product. A development concept is the outcome of the second stage. The perspective plan is the third product. The sectoral proposal is the product of the fourth stage and breakup of the sectoral proposals - time wise, sector wise and local body wise - is the product out of the final stage. The end outcome of each stage has its own standing and use in district planning.

Milestones Achieved in Kerala

In the State of Kerala, Kollam district with an IDDP prepared for the district based the methodology along with supporting tools, guidelines, handbooks, manuals, toolkits, etc. developed by the team and also prepared an approach paper for Five Year Plans of local governments had traversed the entire path to reach the destination. The district of Palakkad is at a similar level as the Kollam District and prepared up to IDDP-Execution Plan. The districts of Thrissur, Idukki and Wayanad have prepared up to IDDP- Perspective Plan. The remaining districts in the state have completed their DURs.

Q3: Who financed plan preparation of IDDP?

The project of the preparation of IDDP was initiated not at state level but at local level i.e., by the DPC Kollam, conceiving it as a joint project of all local governments of the district. That means that the source of funding for preparation of IDDP is from local governments of the district.



Goa: Implementation of acts with reference to regional land use planning

Mr S. T. Puttaraju

Dr S. T. Puttaraju, Chief Town Planner (Land Use), Goa presented to the members the important aspects, key features and the regional planning process that was carried forward in the State.

Regional planning in Goa was carried out for the entire state. The focus on regional planning is on spatial land use plans with development guided by environmental protection. The regional plan forms the basis to lead micro planning with village panchayats being one micro unit. The aim of the regional plan in Goa is to have a people-centric approach. Plans and scales should be user-friendly which means that the plans are easy understandable and readable for people that do not work in regional planning. At all levels, a consultative process is mandatory.

To implement the plans, the following strategies were adopted:

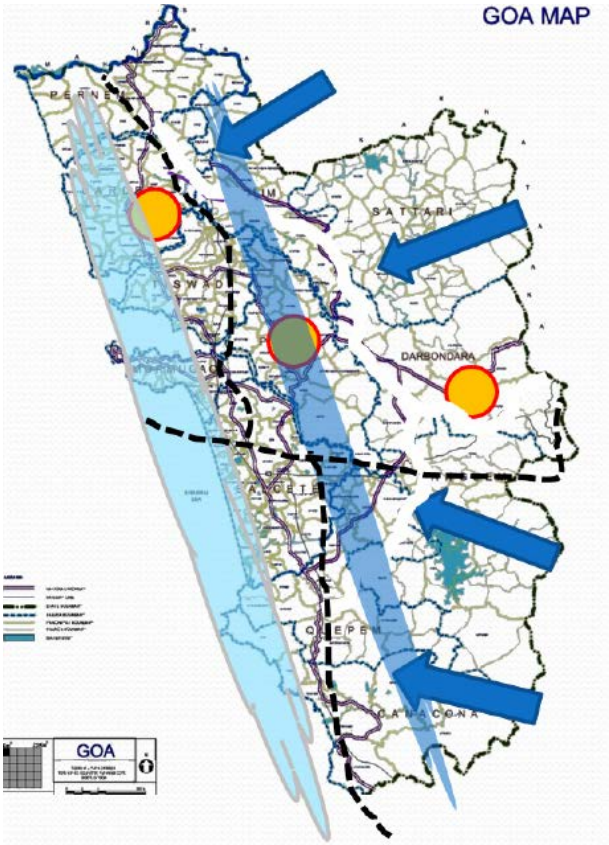


Figure 5: Development Strategy, Goa. (Extracted from the presentation of S.T. Puttaraju)

Public views and participation: a task force was set up which called for views from public for a vision for the year 2021. 21 NGOs were invited to share their vision of Goa 2021, and the participation was published through public notice in all papers.

To ensure public participation, the following measures are taken to involve people or representatives of all social groups in the planning process: state level coordination committee, subregional technical teams, micro level planning team formation (village panchayat level), preparation of 'planning kit', training of subregional technical team, training of micro-level elected leaders, interaction of planning resource persons at micro level, holding of Gram Sabha meetings and distribution of questionnaires. Data collection and information is carried out through a consultative process and secondary data collection. All departments of sectors prepare a 5-year plan and annual plans, but a long-term planning for the next 20 years is missing. Based on this information it took four

to five months only to gauge what is needed for the public.

The scale for the state regional plan was fixed at 1:100.000; the district plan at 1:50.000; the taluka plan at 1:25.000 and the village plan at 1:5.000.

Two eco-sensitive zones were identified: ESZ1 - which includes no-go areas and ESZ2 – which includes areas where restricted development is permitted.

The regional plan in Goa is a statutory plan which means it is legally secured. No development can come up in Goa which is not permitted in the plan. Flexibility is given for the government for public needs so that the execution of the needs will not be hindered.

The following steps to ensure public participation for preparation of the regional plan in Goa took 8 to 10 months and are listed below.

- State Level Coordination Committee
- Subregional Technical Teams (TLTT)
- Micro Level Planning Team Formation (Village Panchayat Level) 185 VP's and Municipalities. Groups are chosen through Gram Sabha Committee for the People Participation. 12 Teams, 185 Gram Sabha and 9 Municipal Corporation.
- Preparation of 'Planning Kit'
- Training of Sub Regional Technical Team
- Training of Micro Level elected Leaders
- Interaction of Planning Resource Persons at Micro Level
- Holding of 'Gram Sabha' Meetings
- Distribution of Questionnaires

Figure 6: Mentimeter question: What in this presentation inspired you the most? Extracted from Mentimeter

Day 2

The second day's discussions focused on THE SECTORS, where the planning approaches of different government sectors, the related processes and methods were taken into consideration when talking about integrated spatial planning.

Mr Georg Jahnsen highlighted an important point based on the previous day's sessions, where a common response was 'while carrying forward land use planning, the process is so complex in the Indian context as funding happens between various sectors'. He hence initiated the following question through the mentimeter and the responses were recorded: Land is more difficult to manage than money:

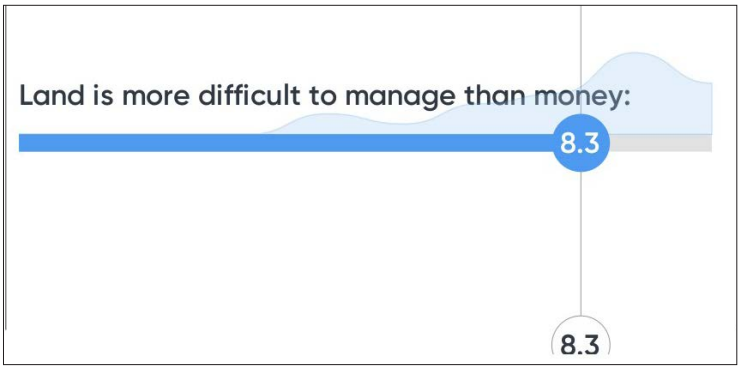


Figure 7: Land is more difficult to manage than money. Agree (10) or disagree (1)? (Extracted from Mentimeter)

Why?

The ability to transfer and use money physically or digitally is advantageous than that of land.

Finity - land is a limited economic and environmental resource.

Complex political, social and economic factors at play.

Static vs. liquid capital

Money is allocated for a particular purpose and the funds go through a particular framework. However, in the case of land, the activities on a particular piece of land are not regulated through a particular framework, although the master plan exists.

The supply and demand of land varies and all government funded programs may not address market forces.

Absence of spatial plans and integration of sectoral plans, lack of institutional mechanism at district to handle plan formulation and implementation.

Approach to Land Use Policy for Tamil Nadu

Dr Sugato Dutt

Dr Sugato Dutt is Head of the Land Use Division of the State Planning Commission, Government of Tamil Nadu. He explained the current scenario of planning in Tamil Nadu, elaborating on the scope of the project and the expected outcomes.

Urbanisation in India began with four metropolitan cities of colonial India. Currently the growth is at a breath-taking pace which is leading to the emergence of large number of census towns. A huge workforce is also driven towards industries (including the IT sector), thus leading to intense demand for land.

In Tamil Nadu, the LUPM project deals with the scarcity of land that needs to be managed. Chennai is one of the largest metropolises in India and continues to see dynamic growth especially in peri-urban areas. The growth, development and maintenance in the area has been carelessly taken forward. This could be attributed to bad planning interventions, poor management of traffic, encroachments and haphazard movement.

One main challenge for planning is the population density of cities in Tamil Nadu. Currently there are 555 people/sqkm and 60 per cent of the population (i.e. urban) lives within 4 per cent of area in Tamil Nadu. Similar to the peri-urban sprawl of Chennai and CMDA, municipalities such as Coimbatore, Tiruppur, Salem and Erode are also experiencing loss of agriculture land due to haphazard and intense peri-urban growth. Several issues of intense urbanisation include

- density regulation
- mismatch of demand and supply for affordable housing: as most jobs are provided at middle level staffing, housing needs to be affordable and easily accessible.
- insufficient transportation: lack of feeder services, excessive number of private vehicles, unavailability of public transport.

The need of planning identifies a greater need for land use policy that addresses the economy, society and environment, and the policy needs to prioritise urban densification, mobility, housing affordability and municipal finance (prioritising funds).

The structure of the policy is being envisaged to be in line with the Tamil Nadu Vision 2023 which identifies Tamil Nadu as the Numero Uno state in the country as far as economic development is concerned. Hence, the project focuses on: significance of policy, vision statement, plan preparation, plan implementation and capacity building.

Regional land use conflict resolution in India

Dr S. K. Kulshrestha

Dr S. K. Kulshrestha, Expert Consultant, GIZ presented the aspects that are currently considered in spatial planning practices in India and what are the various conflicts that can arrive due to land demand and how these conflicts could be resolved by rational approaches.

When regional land uses are concerned, the conflicts that arise are intersectoral as well as intra-sectoral. Transportation and tourism for example can affect the sectors of agriculture, forest, water bodies etc. Another example is the case of a development project that is taken up by the water and drainage board, which might conflict with the water conservation project by another department of the same sector.

The nature of conflicts that mainly arise at the regional level are conversion of land uses (especially demand for agriculture or forest areas), environmental degradation/coastal regulation zone violations, man-animal conflict areas, water pollution and industrial areas, areas of depleting water tables, areas prone to social conflicts and blocking of catchment areas.

Other common examples of environmental degradation are

- industries and urban/rural development causing river pollution, heat islands, obstruction to catchment areas,
- agriculture practices causing air pollution, water pollution, depletion of ground water etc.
- transportation infrastructure causing obstruction to catchment areas of lakes drying of water bodies
- mining causes air pollution etc.

Other examples mentioned to visualise the extent of conflicts are the facts that due to illegal mining in the National Capital Region, 31 hills of the Aravalli ranges were raised to ground. In Tamil Nadu, there are 190 Coastal Regulation Zone violations along its East Coast Road.

There are four approaches that can be used to minimise the impact of humans on nature. These are:

- legal approach by various acts, rules, regulations, guidelines that legally control regional land use and environment (forest, reservations, sanctuaries, coastal areas), Environmental Impact Assessment (EIA)
- social approach by stakeholder consultation, negotiation, use of Spatial Data Infrastructure (SDI)
- spatial approach by land use priority zoning, Strategic Environment Assessment (SEA), Spatial

Development Probability Assessment (SDPA)

- and fiscal approach by incentives and inducements to people in the controlled areas

Environmental Impact Assessment (EIA)

- Legal Provision available
- Carried out specifically for the approval of a project (say Project A)
- While carrying out EIA for Project B, it does not incorporate the impact caused by the already approved and functioning Project A

Strategic Environment Assessment (SEA)

- Not legally backed and used as an optional tool by planners
- Defines and provides a variety of policies that suggest the impact of plans and programs have on the environment
- Carried out for any 'n' number of projects that are to be incorporated as part of a plan or programme
- Provides cumulative understanding of all projects that are to be set up under the program, and provides specific understanding on the number of projects that can be set up and the particular activity that can be carried out.

Spatial Development Probability Assessment (SDPA)

- When a lot of investments come, an activity change is bound to get generated that have spatial implication, as the investment would bring in employment, which in turn would require housing, which require land and space to fulfil.
- For example: An investment that creates 5,000 jobs, would over a span of time result in accommodating a population of 70,000 people and requires 17,000 houses (calculated result based on a number of factors). Here, the tool of SDPA would help to stipulate conditions upon which the project can be approved.

Q&A session

Q1: When there is a legal backing to the National Capital Region, with specific zoning restrictions etc., how did the hills disappear? Does this invalidate the plans?

The various states within NCR have been mandated to demarcate the boundary of the Aravalli ranges within each state and identify those zones that are eco-sensitive. This has not been carried out by the NCR Planning Board, and hence has led to the loss of these hills.

Q2: Who are the key stakeholders in land management? What are the complexities?

Primary stakeholders would include representatives of the people from the legislative assembly etc., and a lot of governance is operationalised by the civil servants. Village panchayats unfortunately do not have a voice in the decision making process and they do not possess funds for development. For example, the property taxes of restaurants are also not utilised directly by the village panchayats.

While more than 50 per cent of land is set aside for public utility development, the state proposes FAR increase etc. When land is acquired from the public, they are compensated. However, it has to be understood that compensation is not the same as profit. This leaves the owners of the land surrendered at a loss. The only solution is to share the load of development amongst all stakeholders.

Environmental concerns linked to hydropower sector: The relevance of SEA

Dr Asha Rajvanshi

Dr Asha Rajvanshi, senior consultant with Wildlife Institute of India (WII), showed the relevance of Strategic Environmental Assessment (SEA) by a specific case example the Bhagirathi and Alaknanda basin region of Ganges river and its relevance when carried out for Hydropower Planning.

The Ganges is the longest river in India that is transboundary. It is known for its cultural significance, historic and economic benefits, social benefits and its environmental necessity as it is home to many endangered species. The total number of hydropower projects along the Bhagirathi and Alaknanda basin were 70, amongst which 14 were underway, 17 were commissioned and 39 were proposed.

An analysis was carried out in each sub-basin to understand the impact of the dams in a scenario assessment. This was done considering four scenarios:

- impact of all 70 projects,
- impact of only 17 existing projects,
- impact of only all commissioned projects and those under construction
- and the incremental impacts of future projects.

The analysis created big conflicts between different stakeholders as it suggested that 24 projects were to be closed as they would highly affect the nature. The result of the weighing process at the end of the analysis was that six projects which are highly detrimental were to be stopped. The government was ready to reverse the invested cost towards the existing construction work carried out for these six projects.

Nevertheless, legislations are still not comprehensive enough to measure discharge with monthly assessment.

National actions and policies like the Clean Ganga project help in the protection of the Ganges. This has successfully led to a new legislation, which specifies that a minimum percentage of 20 per cent flow has to be maintained in the river.

Q&A session

Q1: Was it possible to have restricted more than 6 of the hydropower plants, by suggesting solar power generation as an alternative?

Solar power generation as an alternative could have been suggested, but, the scope of the study was limited to only hydropower plants.

Q2: In the context of Land Use Planning, can the Strategic Environmental Assessment be carried

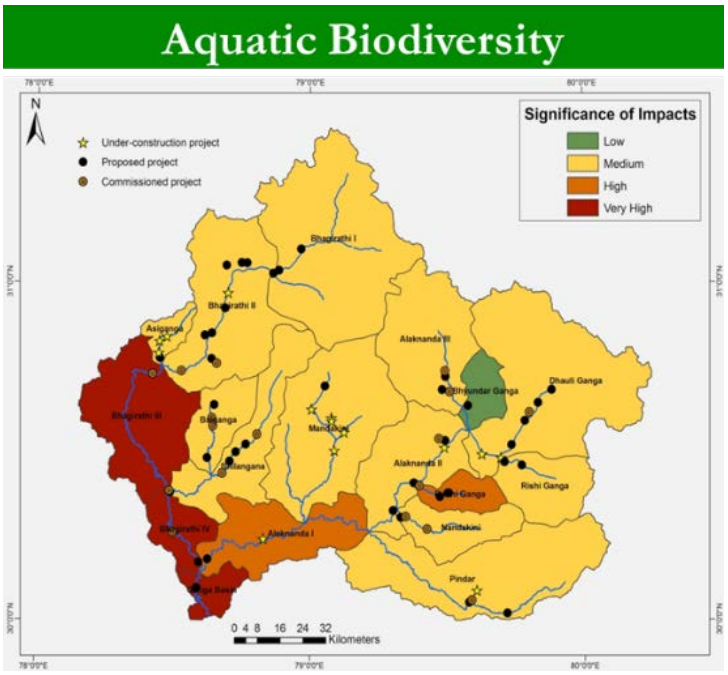


Figure 8: Scenario of the Impact of all 71 projects on aquatic biodiversity. (Extracted from the presentation of Asha Rajvanshi)

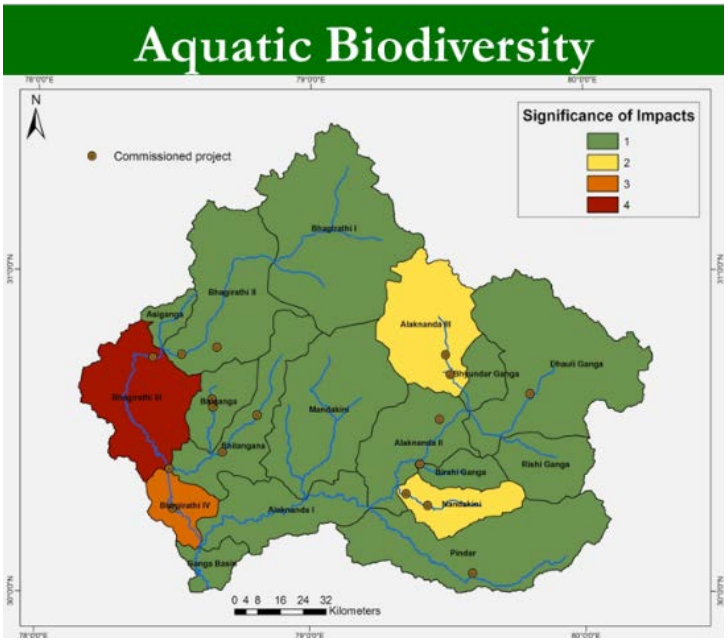


Figure 9: Scenario of the impact of the 17 already existing projects on aquatic biodiversity. (Extracted from the presentation of Asha Rajvanshi)

out at the regional level? And, could this approach be used while framing the policy? (Dr Sugato Dutt, SPC, TN)

The Land Use Planning and Management Project is a special case oscillates between the regional and state level. Hence, the state would have to decide if SEA needs to be integrated in the policy, or recommended for different scales.

Q3: What is the difference between environmental flow and river flow?

Environmental flow refers to the minimum flow of the river that enables the movement of species.

Q4: Can there be a pre-set conditions prescribed to ensure 'no-do' situations?

Q5: Historically, fish ladders have not worked in the past. And SEA has not been specified in the legislation, but the minimum flow has been highlighted.

Regularisation of Land Use Pattern, will only resolve problems at parcel level. But in order to resolve the entire problem, the responsibility and choice has to be made by the planners. For example, the RURBAN mission that deals with rural areas only demarcates and does not include how the 'country' could be integrated in the Regional Plan. This is also the reason why funding mechanism cannot be designed at the national level.

Planning Processes and the Role of the Planner

Mr Jürgen Wittekind

Mr Jürgen Wittekind is a planner at the consultancy office 'Raum und Energie' in Hamburg, Germany, working for federal, state and municipal agencies from 1989. His office works on spatial development, planning and mediation of planning processes. Mr Wittekind presented the incorporation of rural priorities in the regional planning process.

Germany faces different spatial development challenges than India. The demographic change which can especially be seen in rural Germany has a big impact on the living situations and standards in Germany. Therefore, regional planning needs to consider this change in demography and the resulting challenges and restructure the existing plans. The influx into the metropolitan regions is not desirable and therefore is no aim in the planning process at national and state level. The overall aim is to keep the rural areas attractive to ensure equal living conditions across the territory.

The example of Metropolitan Region of Hamburg

Mr Wittekind presents the example of the funding project 'active regions' in the Metropolitan Region of Hamburg that it is not sufficient to plan within administrative borders but ensure that the plans covers the effected and influenced area of a city, even beyond its boundary to take into account urban-rural linkages. Rural areas have an increasing ageing population, so the local level plans reduce the number of kindergartens and increase the needs for the ageing population. Also, there are large single independent homes used by less people. This means that homes today must be designed and allocated based on need, and this should be reflected in planning. These strategies are directed towards reducing the pressure on land.

Mr Wittekind concludes that the planner takes care of the framework conditions to make the regional plan feasible.

Q&A session

Q1: What are the most important contents of spatial plans in Germany?

Spatial planning in the Federal Republic of Germany is carried out on two levels. On the one hand on the federal national level, on the other hand on the state level.

In brief, the spatial planning of the national government concentrates on the formulation of claims in the form of models for spatial development (closely coordinated with the development ideas of the European Union). The focus here is based on the goal of sustainable spatial development. In other words, social, cultural and economic demands on the one hand and ecological concerns on the other are to be reconciled as far as possible and balanced conditions are to be

established overall. This includes safeguarding services of general interest, strengthening economic competitiveness, developing land uses sustainably and protecting resources, and shaping climate change and energy system transformation. In addition to ecological and economic, social and cultural development, 'special areas' such as energy, water and transport management, national defence or the use of the sea are included in the analysis.

Q2: How is private property dealt with in Germany within the framework of spatial plans? If the regional plan does not consider the owner of the property as a factor, does it mean that the participatory planning is only a process on paper?

While a project is part of the regional plan, two aspects are taken into account: (a) How are owners of private property affected? (b) What effect does the Regional Plan have on the surrounding plans? But the key difference is, here, one does not ask 'who' the owner is, but we identify who is going to be affected. For example, if a high rise is proposed for residential purpose, the owner alone gets affected. Hence, if he disagrees with the plan, the plan will not go through.

Only during the implementation of plans ownership conditions are taken into account. For example, planning cannot be carried out or implemented against the will of an owner. And if so, high judicial hurdles must be overcome.

Objections with the right to be taken into account in these highly formalised procedures can be raised by those whose interests are affected. This 'concern' must be justified, but it does not only apply to property rights. It can also be, for example, impairments caused by noise or an increased volume of traffic that lead to third parties being affected. The extent to which these concerns are ultimately taken into account in the planning process is decided by the municipality in a weighing procedure. The result of the weighing can be complained about, i.e. submitted to courts for examination.

In addition to legal participation, there is also voluntary participation by citizens. In municipal practice, this is aimed at all conceivable municipal policy issues. The spectrum ranges from municipal development to environmental protection. In this context one speaks of participation. According to the claim it goes beyond pure information.

Q3: It is well known that Germany has long been responsible for regional planning and planning. It seems that in the plans of the past too many areas were designated for a certain use. How are such problems dealt with if once cultivated areas cannot be returned to the ecological cycle economy?

The planning is precise in terms of area (land related planning is carried out at the level of the municipality). This planning right of the municipality is protected by the constitution. Planning at this level takes place in a two-stage system: a land use plan determines how the area of a municipality can be used. It shows the location and extent of commercial, shopping and residential areas, the course of roads, locations of schools, sports areas, areas for energy generation and much more. The development plan specifies the land use plan. It refers to subareas of the land use plan and regulates, for example, the use of areas (building density) or the width of roads. It also regulates the concrete use of the areas (exclusively residential, mixed residential and commercial, only commercial, etc.). The preparation of these plans is always associated with a discussion of the requirements. It is obvious that these can be better assessed at the municipal level than, for example, by a central government agency. Forecasts on demographic development play a central role in these demand assessments.

Nevertheless, incorrect planning cannot be ruled out. For example, in the form that, contrary to expectations, commercial properties ultimately developed will not find any buyers/users. In such cases, it is possible to change or reverse a plan.

The situation is different with fallow land, i.e. land that is no longer used for a variety of reasons. Their reuse can be difficult (e.g. if the owner is not particularly interested in reuse) and can be associated with high costs. Nevertheless, it is a task of municipal planning to revitalise these areas

again. This succeeds where economic development is good and demand pressure is high.

Unfortunately, this does not apply to all parts of Germany. Especially in the eastern federal states there are municipalities where the revitalisation of fallow land is progressing at a very slow rate.

Q4: How are conversions of lands from agricultural use to non-agricultural land uses carried out? And how and when does the Environmental Impact Assessment (EIA) process take place?

In Germany, around 51 per cent of the area was used for agriculture in 2016. In the federal state of Schleswig-Holstein, the share is even around 68 per cent. However, the share of agricultural land tends to decline continuously. Instead, the settlement and transport areas are growing: in the years 2000 to 2016 by 12.1 per cent (this corresponds to 5,315 sq km). This (ongoing) development is certainly problematic. A reason to attach great importance to the reuse of brownfields.

The municipalities, as the responsible authority for planning, prepares the land use. If the owners of the land are willing to make it available as planned, then the conversion of agricultural land to settlement and transport land takes place.

In the examples shown in the presentation, there are precise boundaries that distinguish various zones. The process of converting agricultural land uses to non-agricultural uses is difficult now. And hence, the strategies adopted become crucial, where analysis is carried out to determine the extent of residential area required and how it could be incorporated within the urban area itself.

Environmental Impact Assessment is carried out mainly to check water related issues and its impact on agriculture. Even in Germany, there is a loss in agricultural land. Hence, to avoid the long term impacts we do not allow conversion of land, but construction of barns etc. are allowed to be carried out by farmers in order to provide flexibility. The regional planner must ensure that there must not be a fragmentation of development, and the core urban area must have the best infrastructure that is needed.

Figure 10: What in this presentation did inspire you the most? (Extracted from Mentimeter)

Fishbowl 2: Institutions, laws and power

Before proceeding to the fishbowl session, Mr Georg Jahnsen highlighted on a statement based from the discussions on day 1 and 2: 'Regional Planning requires a nodal cross-sectoral department for planning on state level'.

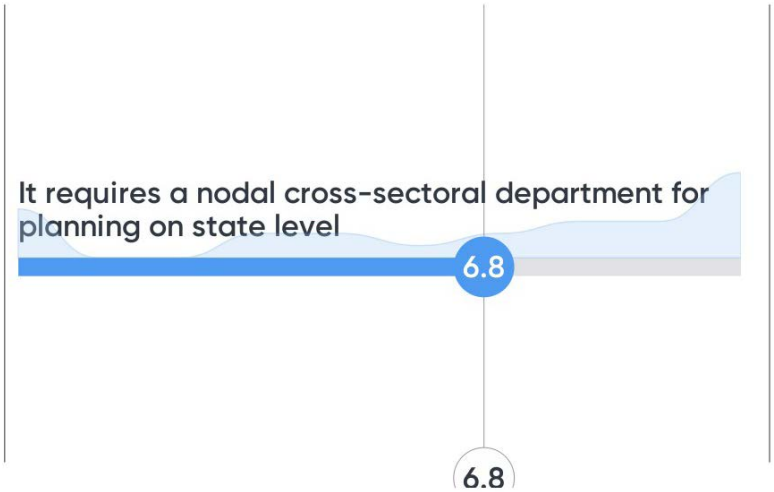


Figure 11: Regional Planning requires a nodal cross-sectoral department for planning on state level (from 1: do not agree to 10: completely agree). Extracted from Mentimeter

Mr Stefan Gebert invited Dr Sugato Dutt, Mr Jürgen Wittekind, Mr Georg Jahnsen, Mr S. K. Kulsreshtha and Ms Asha Rajvanshi to participate in the fishbowl discussion.

Mr Georg Jahnsen directed a question to Mr Wittekind: Who steers the process of the internal (within the government setup and inter-departmental interaction) and external participation (involving citizens)?

That depends on the topic: Firstly, processes are handled internally, within the administration. Only when the administration realises it is not getting anywhere, external consultants and moderators are hired. Reasons can be: (1) when the issue to be solved is technically too specific and difficult or (2) when the kind of how the issue was handled internally was not productive. For (2) Mr Wittekind states one example of a federal state where eight different ministries involved in a planning process were not able to find a resolution. The second step is to go with the processes and decisions made internally out to the political level and to the public. There is no blueprint for how to do the participation processes.

Mr Georg Jahnsen addressed the complexity of land management in Tamil Nadu and asked Dr Sugato Dutt who are the main stakeholders, and how they interact with each other in order to work on this complexity.

Dr Sugato Dutt, Head of Land Use Division, State Planning Commission, Government of Tamil Nadu highlights that in actual terms, the primary stakeholders are the citizens, and the people's representatives (elected) at the assembly who voice the opinion of the people they stand for at the local or state level. A lot of governance is operationalised by the civil servants such as Secretaries of departments concerned that play a role in conceiving proposals, funding and translate it into

action. So the bureaucracy becomes an important stakeholder as well. When it comes to operational procedures, it is typically the civil servants dealing with it.

Dr Asha Rajvanshi adds that while integrating information at the sectoral level, the sectors creating larger level of conflicts are those like hydro-power, mining etc. which may have specific policies under the goals of the state, these sectoral policies are contradicting to the larger vision of the state. A case example is Bihar, where coal mining plans are laid out for good economic gains, but are directly conflicting with the plans that envisage expansion of tiger reserves in the state. Hence, the vision documents that are prepared for the state overarching all sectors are the key contributors.

Mr Saswat Bandyopadhyay, professor at CEPT University mentioned the well-intentioned tool of spatial planning is being discussed here as, being available to all departments for implementation. This could be a hypothesis in the Indian context as the ground reality is more complex than what was seen in the German example. Consequently, it is important to identify a solution of how regional plans (especially pertaining to rural planning and development) could operationalise amidst these complexities.

Dr Sridharan, Director of SPA Bhopal said while we speak about 'a well-integrated plan', most of us as planners fail to address how this integration needs to be carried out. For this it needs to be made clear as to what is meant by 'country' in all the Town & Country Planning Acts. It has to be realised that by just spatially declaring certain areas in the region as a 'no-go' area, and suggesting policies, incentives and regulations for the remaining areas would not solve this problem. These areas must also be included in the spatial strategy and directed into the spatial process.

The discussion continued with reference to the extensive public participation in Goa and how inputs from the public were taken up by the authorities before the draft plan was prepared.

Dr Puttaraju, chief town planner in Goa, underlined that the opinion of the public was taken from the beginning. Therefore, the Goa Government needed to involve them completely, where environmental concerns drew maximum concern followed by haphazard growth and development. This is a unique case as people can already see and live the negative environmental impacts which economic development can bring. Another speciality in Goa is that the Department of Town Planning is very powerful due to statutory plans which do not allow sectors to choose independently.

Mr Jacob Easow, former town planner of Kerala explained that in Kerala the local body generally refers to the municipality or village panchayat which captures peoples' aspiration during data collection at the local level. Spatial analysis is also carried out in a detailed manner. Hence, at the regional level, a Gram Sabha participation is ensured. This is enabled with seminars and working groups where the public can participate.

Cross-sectoral regional land use plan preparation in Coimbatore, Tamil Nadu

Dr N. Sridharan, SPA Bhopal

A pilot regional plan for Coimbatore Region was prepared by faculties and students from School of Planning and Architecture, Bhopal, under the guidance of Dr Sridharan, director of SPA Bhopal. The students presented the progress in the regional planning exercise.

With a population of 72,138,958 spread over 130,060 sq km in 32 districts, Tamil Nadu is the 11th largest state in the country and stands first in the number of factories present and number of people employed. The students of SPA Bhopal presented the analysis of a pilot regional plan of Coimbatore. The students had taken up a 'free flow visioning process' which was derived from the existing scenario of the state and the industrial scenario of the country.

The vision for Coimbatore region would be to ensure 'sustainable economic development with the focus on economic Growth Engines'.

The planning approach for Coimbatore Region is based on a 'participatory approach' and by identifying thrust areas of each subregion:

- The Nilgiris - Environmental Conservation
- Tiruppur - Sustainable Industrial Development
- Coimbatore - Employment Generation
- Erode - Competitive and Environment Resilient

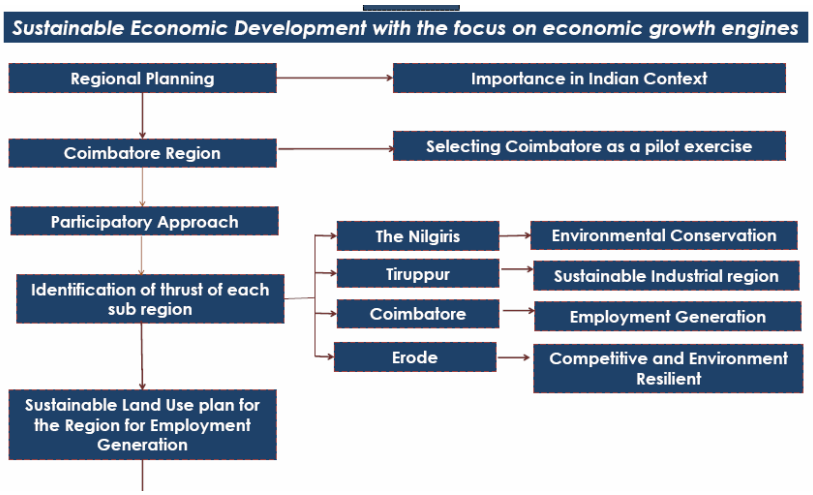


Figure 12: Regional Methodology. (Extracted from the presentation of Dr N Sridharan)

The process of identifying the settlement hierarchy has been carried out through 'scalogram' analysis, where settlements are arranged based on size and importance, and measured by assigning weightages to each attribute. Settlements are classified as growth centres, nodal villages, service villages and base villages. The infrastructure and services are further assigned and assessed for each district.

Tiruppur District

Tiruppur region has an incremental population growth rate. The economy is dependent on its knitwear production units (up to 3000 units), contributing to 45 per cent of India's total knitwear production. Apart from knitwear industries, the district also has rice processing and oil industries.

Industrial growth centres are present in all Taluks with successful Zero Liquid Discharge. One of the reasons being a successful Public Private Partnership (PPP) model in providing water supply in the district.

The vision statement that Tiruppur would contribute towards the region is: 'Progressive Sustainable Industrial Region'. For this, industrial growth clusters were identified, as well as settlement growth and environmental sensitive areas were analysed, such as the need to restore Noyal river and conserve Anamalai forest.

Erode District

Erode's vision was formulated as: 'To promote and regulate Erode as a globally competitive and environmentally resillient settlement'. The objectives of the plan are to strengthen the economy, inter settlement functional integration, environmental sustainable development and institutional framework development for better spatial governance.

The district is well connected with a high road density in the southern part and medium and small scale industries in the northern part. The north of the district is dominated by forest, and the south by settlements. The soil type is mostly red, loamy and sandy soil, and the major production is Cholam (Corn). Due to industrial demand for water, Erode has lost a great amount of ground water over the years.

Coimbatore District

With the vision of 'development of global environmental hub and employment generation', the objectives of the Coimbatore subregion is detailed in 4 major thrust areas: Sustainable and inclusive employment, economically efficient industries, spatial planning with sectoral and temporal integration, as well as inclusive governance with effective policies.

Development along the transit networks exists in the district, as well as environmental barriers in the Annamalai Reserve and the Nilgiris. Hence, both environmental conservation and industrial growth has to be balanced.

Nilgiris Region

50 per cent of the Nilgiris district is covered by the forests of Western Ghats and UNESCO heritage sites. Consequently, the vision for the district is to ensure 'Economic Growth with Environmental Conservation aspects of the Biological Area'.

Though there has been no change in the built-up area in the past 10 years, a lot of forest area has been converted into plantations. The region has scope for future settlement development. Land parcels are divided into (i) No Development (ii) Restricted Development (iii) Regulated Development and (iv) Highly Developable Zones.

The students concluded that 2031 will be the decade of change to Tamil Nadu. The Coimbatore Region has to be handled more carefully than the proposed Chennai Metropolitan Region Area, as the region would be 2.5 times larger, with 4 smart cities, 9 urban agglomerations and 80 census towns out of the total 221 towns in the state.

Cross-Sectoral Land Use Planning. Regional Plan Preparation in Ganjam, Odisha

Mr Ranjan Kumar Mallick

The district land use plan for Ganjam District was carried out by Geospatial Solutions, Bhubaneswar. Mr Ranjan Mallick, team leader, presented the progress of the plan.

Ganjam is one of the 30 districts of Odisha. It has 3 administrative zones. Maps were prepared to understand and generate a composite map at the block level. There were four sectors that were analysed in depth with block-wise data resulting in the following conclusions:

Agriculture: 47 per cent of the area was identified to be suitable for practicing agriculture. Spatial location for infrastructure facilities for agricultural development were identified.

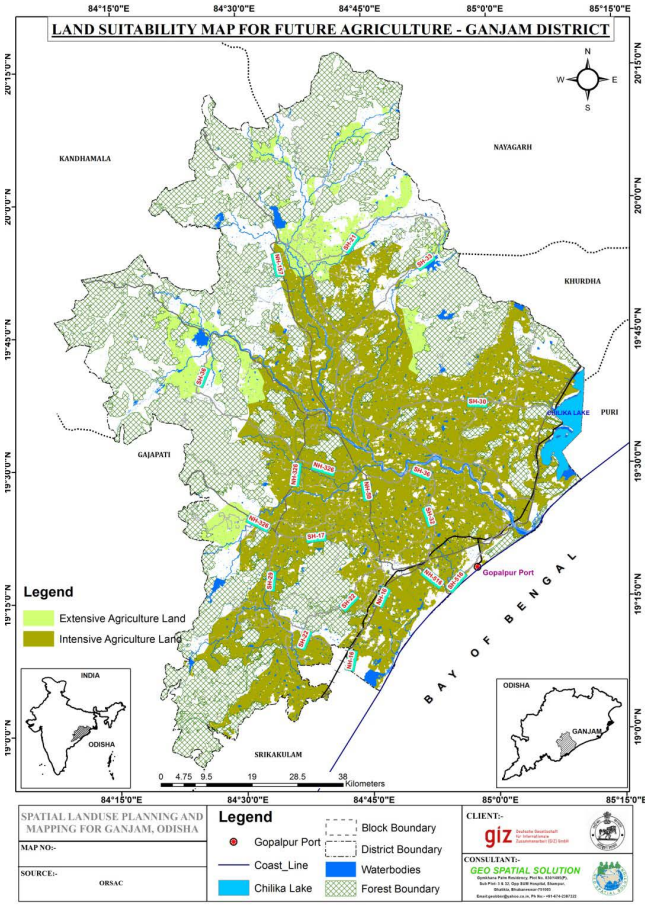


Figure 13: Land suitability map for future agriculture. (Extracted from the presentation of Ranjan Mallick)

Fishery: A large number of ponds and reservoirs in Ganjam district were identified to be protected.

Animal Husbandry/livestock: Large and small livestock were mapped and the total area required for housing and grazing of livestock has also been calculated.

Forest and tourism: All the areas under forests such as reserved and protected forests, wild life sanctuaries, unreserved forests etc. have been mapped and areas were identified as no-go areas, with focus on forest conservation and afforestation. Tourism was mainly identified through the existing road network.

The lack of integration of various scales of plans has aggravated conflicts between different socioeconomic sectors and resulted in unplanned resource utilisation. The ownership of land in the district also appears to incline more towards private land rather than government owned land.

Some of the objectives of the regional planning process were based on resolving land conflicts, limiting unregulated development, food security and strategising multi-growth node dependencies.

The regional planning process was carried out with a preparation of base maps at 1:50.000 scale using statistical and spatial data from various departments compiled from GIS and through a consultative process with the concerned departments. This was followed by data compilation, gap finding and a baseline report. The analysis based on the compiled data was derived, the process would now continue and be completed before the end of the LUPM project.

Q&A session

Q1: On what basis would the various projections for 2040 be made?

Projections are made differently for different purposes. However, population projection is formulated based on an arithmetic method, R.G. method, and induced method as per the guideline of DTP. An average population has been considered up to 2031.

Q2: How did you define afforestation zones?

It is defined as the existing afforestation area which is undertaken by the Forest Department. Other potential afforestation areas have been proposed on open forest area, river side etc.

Q3: How did the sectors contribute to the analysis? How was the interaction versus desk research?

Most analysis was from sectors. Interaction with all stakeholders and departments is 90 per cent, whilst field visits, community interaction, desk research is only 10 per cent.

Q4: What is your approach to disaster management in cyclone prone districts, such as Ganjam?

Disaster management mostly relates to floods and cyclones. Accordingly, the district level proposals are framed heavily toward floods and cyclones.

Q5: Do you see your role as regional planner to give a spatial dimension to the plan or to plan all the sectors?

We attempted both models of regional and sectoral planning with an integrated approach, enabling a conceptual technique of dispersal, whilst simultaneously eliminating processes of polarisation.

Q6: There is a lot of sector wise depth achieved, how much work had to be done by the planner and by the sectoral departments itself?

The data analysis is carried out mostly by the planners and by the sectoral departments. District level data validation, and sector-wise maps were prepared by the departments. Data was collected from 27 departments.

The fundamental issue of a planner is to have to 'do it all'. But, it is important to work with experts of particular fields in order to arrive at a holistic plan. (Mr Sashwat Bandyopadhyay, Professor, CEPT University)

Q7: Do you work on GIS platform or CAD?

We work principally on GIS tools.

Day 3

The last day of the conference was focussing on THE GOVERNANCE, where governance models of regional planning in India and abroad were discussed, specifically looking into components such as authority levels, financing mechanisms, mandates and staffing. Core questions were also discussed to arrive at suitable models for the states of Odisha and Tamil Nadu, through an interactive working group session.

Questions at the beginning of the day on Mentimeter (1: I do not agree; 5: I completeley agree):

- I benefited from the discussion rounds so far: 4.1
- I benefited from the contents that have been presented so far: 4.1
- I experienced a lively event: 4.5
- I would recommend joining such an event to other from this field: 4.3

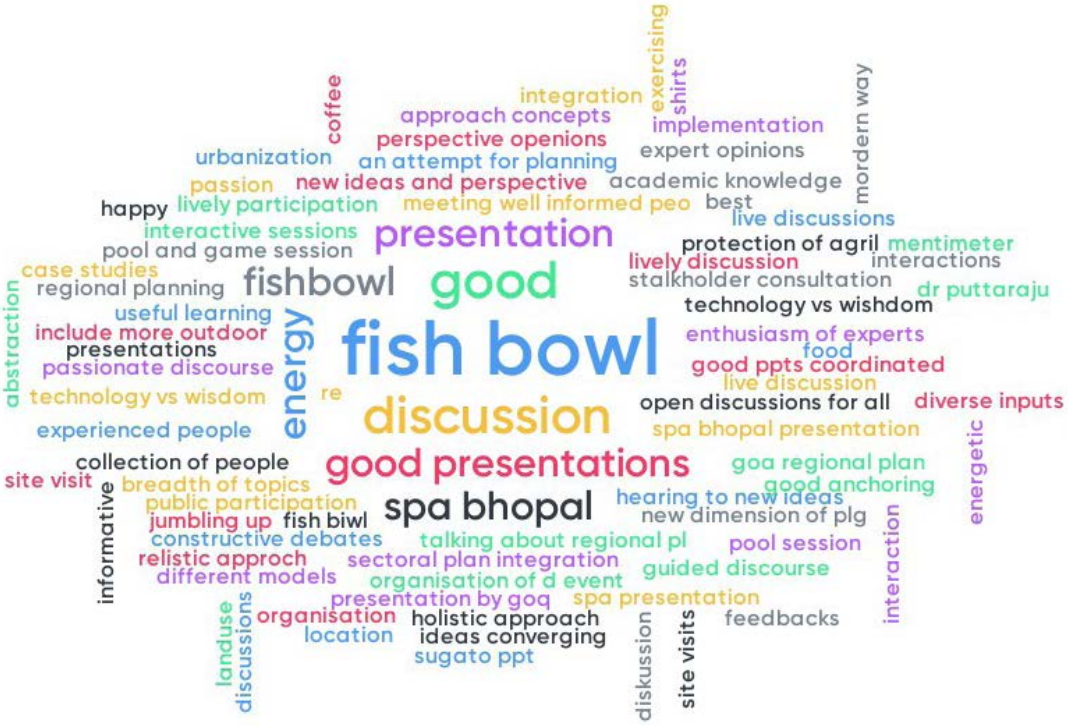


Figure 14: What did you like the most at this conference so far? (Extracted from Mentimeter)

Governance model of Stuttgart Region, Germany

Mr Thomas Kiwitt

Mr Thomas Kiwitt, director, Regional Planning Association, Stuttgart presented the governance model used for multi-sectoral spatial planning. Taking the region of Stuttgart situated in South-West Germany as a case example, he provides detailed understanding of the robust system in place for effective functioning of spatial plans.

Compared to other German regions, the Stuttgart region is a wealthy region. This is mostly because of the localisation of the car industry which results in low unemployment rate, high sociocultural standards and high GDP and hence, one of the highest living standards in Germany.

Since all municipalities compete to perform well, connectivity within regions becomes the primary factor that influences the industry-led economy. The Stuttgart region consists of 179 municipalities, out of which 121 have a population less than 10,000 inhabitants. The securing of connectivity plays an important role as 75 per cent of the inhabitants in the region travel every day outside of their municipality.

The local level is the most powerful and mayors of the rural districts are in an influential position, allowing them much leverage in asserting the interest of their municipality. The challenge of the rural districts in the Stuttgart region is to be competitive at a global scale. Therefore, there is a demand for a joint promotion of economic development. Since the municipal level takes the responsibility of basic infrastructure, land use planning and zoning, it is therefore empowered to resolve local level issues with their own finances. Nevertheless, certain issues go beyond the scale of the municipality (physical and financial), and this requires resolution at the regional level. Initially, municipalities took decisions for identifying global competitors for economic development directly, but over time it was realised that the growth of the entire region as an economic hub was important to be taken up. Hence, economic development has been bundled at the regional level.

A regional area is observed to be functionally derived from identifying grids that integrate the vertical administrative system and the horizontal sectoral system, i.e. financing, agriculture, forest etc. The decision makers are directly elected representatives, meaning political support is needed to enable the regional plan and proposals. The following competences lay at regional level in the Stuttgart region: open space development, regional transportation plan, public transportation, economic development, marketing and tourism and the mandatory comprehensive planning on regional level.

To summarise, regional development is a political process, through which all decisions, in varying civil societies, are made democratically. A region needs to be a functional unit with commonalities and cannot be randomly defined. Moreover, it needs to be kept in mind that while technical expertise and knowledge are important, the larger picture needs to be understood, ensuring that one sector does not dominate another.

Q&A session

The questions below have been clustered to topics: Regional Plan, Politics, Municipalities, Capacity Building and Participation.

Regional Plan

Q1: How many regional plans have been prepared for Stuttgart so far? And, how long does the planning process take?

The process of regional planning in Stuttgart began 25 years ago, and until now 3 plans have been prepared. The process is only getting more complicated with more tasks than before. The Regional Planning Association also takes up Environmental Impact Assessment (EIA) and public interactions before the regional plan is chalked out. This takes a long period of time, and hence, the planning process takes more than 5 years, as the citizenry are not always satisfied. But, although the process is complicated, there is a strong legal platform that compels, and at the same time enables us to successfully carry the participatory process forward.

Q2: Regional planning is being practiced in Germany for more than 25 years, whereas it is only beginning here in the states of Tamil Nadu and Odisha. What were the challenges faced in the initial years of preparing regional plans?

The process began 25 years ago by introducing a new administrative structure of elected representatives with new responsibilities. Although the system was unique, there was resistance from the municipalities, as some of their powers had become compromised. They had to be convinced that their constitutional rights would not be taken away from them, a process that took a long time. Even today, the municipalities feel there needs to be better cooperation between various levels. Notwithstanding, it is important to note that the regional planning process was necessary, despite the mentioned controversy.

Q3: Are regional planning associations private bodies?

No, they are bodies by public law.

Q4: Are amendments made to the Regional Plan before the periodic review is carried out?

Yes. If a plan is being developed there is a possibility to review it before finalising in order to ensure that contrary developments do not arise. However, it is important here to justify the suggested changes.

Q5: Does the size of the region matter while preparing and implementing a Regional Plan? If yes, must the size of regions be reduced and maintained at a particular scale?

The size of the regions are determined based on the priority of each region, and those municipalities that can contribute towards it, and be well connected within it. In order to ensure efficiency, the size of the region needn't be reduced at any point, but, it is important to have a suitable robust framework (which is based on the size of the region).

Q6: How often are Regional Plans reviewed?

The regional plans in Germany are reviewed once in every 15 years. 5 years would be too short to review. This is based on the understanding of whether the region itself is dynamic or does it have intrinsic problems.

Politics

Q7: Planning across the world, is a political process, and in India the ruling party/entity is different at each level (be it national, state or local level). This makes the planning process much more complex. How is this situation handled in Germany?

This issue exists in Germany also, where the ruling party is different at various levels, however, since the responsibility of each of these elected representatives is clearly defined at every level,

the issues are easier to resolve. Also, it is a mandate that once the plan is prepared, it has to be complied to. For example, when wind energy was introduced, there were differing views, but the policy needed to be followed by the administrative system, as it was in compliance with sustainability and energy demand.

Local Bodies / Municipalities

Q8: What is the criteria to be called municipality?

Municipalities are established by law. Each settlement belongs to a certain municipality. However, the size of municipalities is very different – some of with less than 1000 inhabitants (but with full rights).

Q9: What is the criteria that determines a village/town as a municipality (or) are the sizes of municipalities prescribed to not go beyond a certain limit?

The municipalities are allowed to grow organically. Pooling municipalities together have been unpopular in the past. Hence, it is important for municipalities to consider activities beyond their boundaries, which would result in adapting a wider perspective of development.

This wider perspective is derived from a larger idea at the state level, but this too requires cooperation with the local level in order to make the plan effective. For example, if the need for a metro network is identified at the local and regional level based on the increase in car traffic. Sometimes, the state is unable to perceive and accept these local/regional needs, causing conflicts between cities and regions. This is when collaboration and cooperation is extremely essential.

Q10: How did the municipalities become fiscally viable? Was it through good fiscal devolution policies or high land taxes?

Municipalities are authorised to rise local taxes, most important is the company tax. Furthermore, they are entitled for a share of the income tax of the citizens. Also land taxes contribute to municipalities budget to a smaller extent.

Q11: When a regional plan is prepared, if one municipality negates certain aspects of the regional plan, can this negation overpower the regional plan?

Yes, in Stuttgart, the municipalities are encouraged to independently identify their priorities and change from the suggested stipulations of the regional plan at its own capacity. But, this must be carried out without moving away from the overarching framework. This must ensure to include interactions with other stakeholders before carrying it forward for development. In case of larger interventions that would affect the region, this would have to be done in close consultation and approval at the regional level.

Q12: Are municipalities compensated for no development zones?

No, they are not.



Q13: If two counties or municipalities compete for the same facility or opportunity, how do they resolve competing interests?

A competing environment is always welcome between the various municipalities. If two municipalities are seeking the same vision and goal, both are encouraged. However, all decisions made by the municipalities must be under the overarching framework of the regional plan.

If the investment is a private company, the investor will decide. For public facilities the respective assembly will decide. In extreme cases the conflict is taken to court.

Q14: Are there rural local bodies representing villages, like municipalities/corporations for cities?

Municipalities essentially take care of the urban fabric, and the regional plan ensures to incorporate every urban or rural local body bestowing the same powers to all, whether small or big.

Q15: What kind of problem do you face when you involve civil society?

Currently, NIMBYism (Not In My Backyard) is one of the biggest challenges. This is especially true for municipalities with many commuters. So people focus on their town of residence as a quiet 'after work' place.

Capacity Building

Q16: How do you build the technical capacity of municipality staff?

Most important is the direct communication with mayors and senior technical officers. Also, the provision of relevant data base is a big part of the cooperation. There is no strategic work force plan.

Participation

Q17: In regional planning in Germany, the plan is prepared at the regional level and is pushed down to the local level. Where exactly does the people's participation take place and when?

Participation begins at the local level, where they are involved in even drawing construction plans. But public participation is being actively encouraged at the regional planning level as well, while laying down new cities.

As the plans are abstract and complex, the process is elaborate which includes identifying possible ways to make people understand what a regional plan is and what it contains. This is further a challenge as it cannot be over-simplified as well.

Q18: As mentioned in the presentation, since the regional plan takes large chunks of rural land in their purview, does this administrative system ensure that the 'Zilla Parishad' (or elected rural bodies) are kept within the system?

The participatory process in regional planning has always involved citizens, however they are not representatives of the assembly. Hence, the regional planning system ensured that the process involved elected representatives. This becomes important, while drafting building rules at the local level, which are prepared under an over-arching and robust framework, that has been approved by people's representatives at the regional level.

Moderated Working Groups

An exercise was carried out where three working groups were formed to the topics multi-scalar plans, cross-sectoral cooperation and managing use of land. The groups were to identify five current trends taking place under each of the topics and to discuss and prioritise these trends.

Group 'Multi-Scale Planning'

The group identified nine factors that were identified as 'current issues' pertaining to 'multi scalar plans':

- ad hocism in managing multi scalar plans
- state 5-year plans do not incorporate spatial aspects
- currently no action plans at the local or regional level
- state level visions are not translated to the local level due to lack of intermediate plans and policies
- incorporation and planning of rural areas is not carried out
- role of town planners is confined to providing planning/building approvals, which needs to be deliberated further for different scales
- lack in use of technology for plan preparation and implementation
- role of planners currently focuses on sectoral detailing
- lack in engaging public participation during the planning process (master plan)

- digitisation of land records up to cadastral level to enhance the speed of compensation
- developing an intermediate system to standardise land holding mechanisms that vary from state to state

Group 'Cross-Sectoral Cooperation'

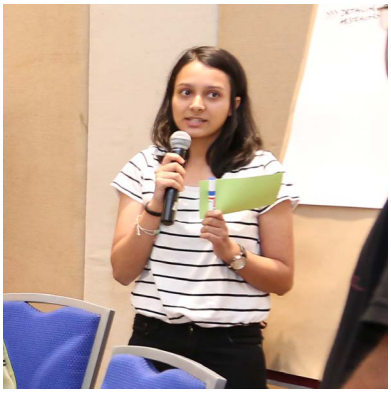
Positive trends that would emerge in the near future are:

- sectors will become less important
- urban would become a cross sectoral entity
- new sectors will appear massively
- intra- and intersectoral communication will grow with emerging platforms
- cities, regions and states that overcome sectoral silos will be stronger

Group 'Managing Use of Land'

Lately, land markets are getting regularised and rationalised, the gap between market values and guideline values have increased, high transaction costs make land value high. A legal framework for regularisation is beginning to emerge and probably government revenue will increase by using instruments such as value capture fund. Based on this, the following trends were highlighted:

- 'land ownership trends' would result in land holdings/parcels getting bigger; the attachment to land would increase, thus reducing transactions of land
- technology would ensure to integrate GIS etc. and take centre stage in land management. The digitisation that is currently happening at a slow pace will consistently continue
- use of land would be focused towards protection of green spaces which would also be financially supported
- the stark differences between urban and rural definitions would decrease
- increase in privatisation of land would thus reduce land encroachment using fiscal tools to reduce gap between market value and guideline value


Feedback

Overall comments

- Great anchoring by Stefan and George
- Good time management
- Very lively, open discussion are always very fruitful
- Fantastic venue
- Wonderful event
- Best presentations and interactions organised by GIZ. Thank you
- More such events and more of this interaction to be organised on regular basis
- Mentimeter was brilliant trigger
- Good moderation but please inform rules of the game
- Good time management for presentation and discussions
- Regional Planning is the least important planning in India. Appreciate to GIZ for promoting the subject.
- Translation is very good
- Danke dir! We really enjoyed the two day academic session! Please involve the students, as much as possible! :)
- It's a well-designed and organised event. We have used our time effectively. The content and presentation was excellent.
- Let us formulate state land use policy for Tamil Nadu and Odisha

Suggestions for content improvement

- Try to focus more on regional planning than local issues
- Need more information on German model
- More emphasis on visioning at regional planning level
- Odisha plan needs to be more focused.
- Regional scale appears far more challenging, need new thinking to consolidate for action on ground
- The event gave lot of insights and experiences with regard to Germany. Case examples with regard to Indian cities would be more appropriate.

Suggestions for organisational improvement

- The voting meter can be used more for discussions mainly for complimenting as well as highlighting the shortcomings for the sake of healthy interaction
- We need separate time for discussion
- Group discussions on key issues where missing
- Visit to institute doing regional plan like MMRDA was missing.
- Policy makers should be there
- Add participants from allied fields to further enrich discussions
- Involvement of institutions like SPA is innovation window

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