

Local land use plan on web site or information about land use? Examples from Poland.

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1 ABSTRACT

Polish law lays local government under an obligation to publish land-use plan on the Internet.

In case of most municipalities, execution of this record boil down to place text plan only without map which is required by law. However, there is a problem of text part and graphic part integrity, which many municipalities solves publishing graphic appendix to plan in the form of graphic files

Face to expectations of investors and citizens, municipalities propose another publication start to offer different forms of publishing land-use plan on their website as well creating 'interactive services' on which they publish only land-use plans. The assumption of such services is maximum simplification of form of land-use plan presentation. Services, which don't make it possible

Services doesn't make it's possible to any composition of spatial information (eg, cadastral information, ortophoto, conservation areas) stops to perform an information function and often become an interpretation of land use plans making by authors of those services.

Can we say about local law in this situation or only about general information from the scope of land use? Authors answer the question: in which way local land-use plan in Poland should evolve so that new-created interactive services show full legal state that is in force in the field of land use.

2 LOCAL PUBLIC INFORMATION ON WEB SITE

Law about access to public information obliges municipalities to own their websites within the framework of Bulletin of Public Information (polish: Biuletyn Informacji Publicznej – BIP). BIP is the unified system of websites of public institutions created to improve common access to public information. Websites of particular public institutions are created according to defined schema with similar structure, what in assumption should lead to easiness of use such websites (both external users and administrators). According to decree of Minister of Interior and Administrator (18.01.2007) on the BIP websites of municipalities are published: entity information (address, phones, authorities, councilors etc.) and objective information (history, environment, land-use planning, tourism etc.) In the part destined to local law or land development should be published land-use plans. In practice BIP websites of many municipalities are maintain of necessity, because huge part of majority of information is available through much more attractive promotional-informational website of municipality. From user point of view obligation of possess BIP website in a high degree raises a availability of information and In case of many municipalities were a ovule of publishing any information in the Internet.



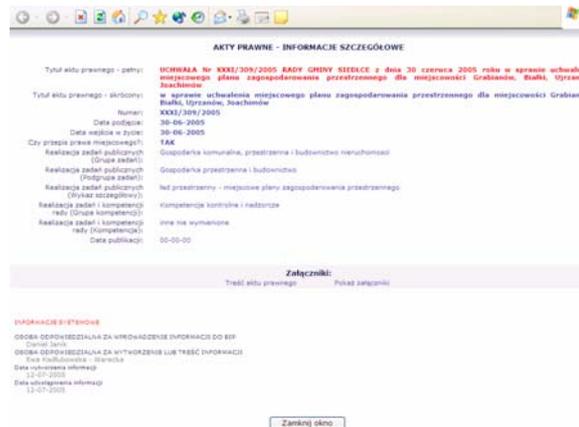
Podkowa Leśna example of BIP web site.

2.1 Land-use plans on the internet

Standardized form of BIP websites was one of the assumptions of BIP but as practice shows websites differs from each other in arrangement and information, which intuitively should be in one section is reality is in another. Typical example could be information about land development. Most often in this section we can find a guide "how to deal with issue" and who is the principal of department in municipality office whereas

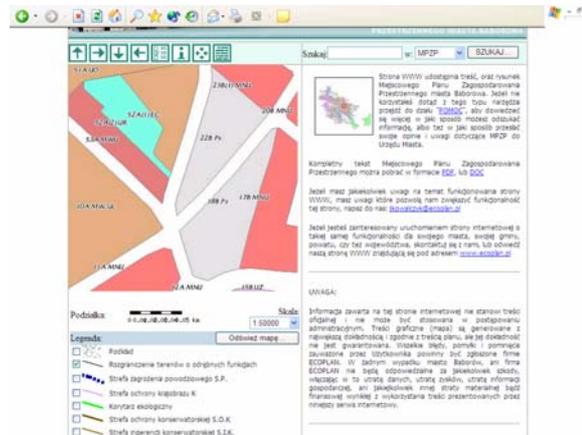
land-use plans are presented in following sections: “resolutions of municipality council”, “local law”, “architecture and housing”, “economy” and at last “land development”.

Most of municipalities (61%) realize their obligation of publishing land-use plans brings to insert on website only a text of resolution without graphical annex. The issue of integrity text part of land-use plan with graphical one many municipalities (18%) solve inserting a drawing of plan in form of PDF or JPEG files. Apart from legible, excellent-quality drawings we can find low-quality files (in low resolution, grey-scale) which do not have high usable value. In result of such a state of affairs it is almost impossible to use land use plan published in that way by a person who is seeking précised information. Particularly, when we consider difficulty with finding specific information on the websites.



Siedlce community a text of resolution without graphical annex.

Face to expectations of investors and citizens, much and much often municipalities starts to propose other forms of publication of land-use plans on their websites – they built so-called interactive services.



City of Baborów on-line spatial plan

The idea of publicize of land-use plans is right, particularly when it takes on an attractive graphic form, but content and function of such services is essential.

It is rarely possible to publish drawing of plan without a substantive waste form the document when land-use plans is presented in the Internet, in form different from static graphic file.

A decree of Minister of Infrastructure, that regulates a scope of land-use plan project, specify a content of this study (including a drawing). Drawing of land-use plan should contain:

- Outline from the study of local conditions affecting local planning and perspectives for spatial development with the boundary of area to cover with and-use plan.
- Scale of drawing in form of text and scale bar.
- Boundary of area to cover with land-use plan and administrative boundaries.
- Boundaries of closed areas and boundaries of their protective zones.

- Boundaries and signs of objects and areas, that are protect because of other regulations (including mining areas, flood and landslide areas).
- Lines which demarcate areas of different use or of different rules of development and their signs.
- Building lines and signs of components of land development
- When needed signs of information components, that are not arrangements of land-use plan project.

Law orders to make land-use plan on ground of base map. It is not only formal rule, because information included on the base map essentially affects on information content of land-use plan. Whereas municipalities intentionally resign from placing some information, because they want to simplify interactive service, what affects on its clarity.

Law about land-use planning and development, that at present regulates rules of spatial management in Poland was adopted by polish parliament in 2003. This law stirred up controversies (and stir up to now) because solutions, that was proposed significantly differed from practice. Controversies focuses on influence of this act of low on impedance of building development, what impresses on lower GDB growth rate.

According to earlier solutions in polish law, only local municipality can decide on way of land management by creating land-use plans. Land-use plans regulates land-use zoning category and settle a rules of development. It is a local law, which affects on value of real estate and investment activity on the area of municipality. Scope of land-use plan is similar to solutions applicable in other European countries, which one can call “Detailed spatial plan documents. Land-use planes, in conformity with spirit of law, are made for built-up areas or areas indicated to build in scale 1:1000. Text part of land-use plan must contain:

- Land use zoning category, including parameters and indicators of land development
- Rules of protection and formation of spatial order
- Rules of nature conservation and protection of cultural landscape
- Rules of protection of cultural heritage, listed sites and contemporary cultural assets
- Demands resulting from needs of public places creation
- Rules and conditions of integration and division of land properties
- Rules of transport and technical infrastructure modernization, development and construction

This is not always possible to visualize all of solutions on the land-use plan drawing because of a detailed approach to issues that are regulated by land-use plan. Text part of land-use plan constitutes a content of commune council resolution and a drawing is its inseparable part. The drawing is a annex to a resolution. A legislator does not let to function of digital form of land-use plan in administrative procedure in any shape (data base or graphic file). Simultaneously traditional (paper) forms of land-use plans causes that its structure is difficult or sometimes almost impossible to present in the Internet in the form of interactive service – service that present full information about an area identified on the map. As practice shows most land-use plans designations are dispersed in different chapters of document and the union of them in one place is impossible.

Problem of law-making by self governments In the field of spatial management, that was outlined above, faces barriers such as:

- Lack of base maps In scale 1:1000 for all developed and indicated to develop areas.
- Dispersed investment activity outside areas of big agglomerations.
- Creation substitute tools by law, witch enable to get building permission, with lack of land - use plan even against to spatial politics of municipality.
- Local government habits of having land – use plans on whole manage area.

Simultaneously insufficient system of spatial development monitoring doesn’t supply precision data about real cover and requirement on land – use plans analysis. Researches of different institutes estimate that nowadays 15-31% developed area and advisable for development have worked out land – use plans.

In spatial management system after 2003 run out abilities for local government to elaborate a document which will have character of land – use plan for whole administrative area which will be decided in less detailed way about area destination and will have law power.

That document would dissolve all problems concerning spatial management on rural area and as frequently practice shows – in little towns. It's estimated that that character of land – use plan will be sufficient for 84-88% area of Poland.

2.2 Interactive system of presentation land – use plans of Lesznowola municipality (IS)

In 2006 Lesznowola municipality (Piaseczno district) makes accessible on its web site an Interactive System Of Presentation Land – Use Plans. Inhabitants and investors using the web portal of commune office can acquaint oneself with contents of land – use plans in digital form – text and graphical part.

Lesznowola municipality is located in one of the most effective economical and social developed area. It puts directly into spatial planning. Nowadays 97% of municipality area is covered by land – use plans. In sum after 1994 adopted 50 plans. It is undertake successive resolutions about accession to work out land – use plans.

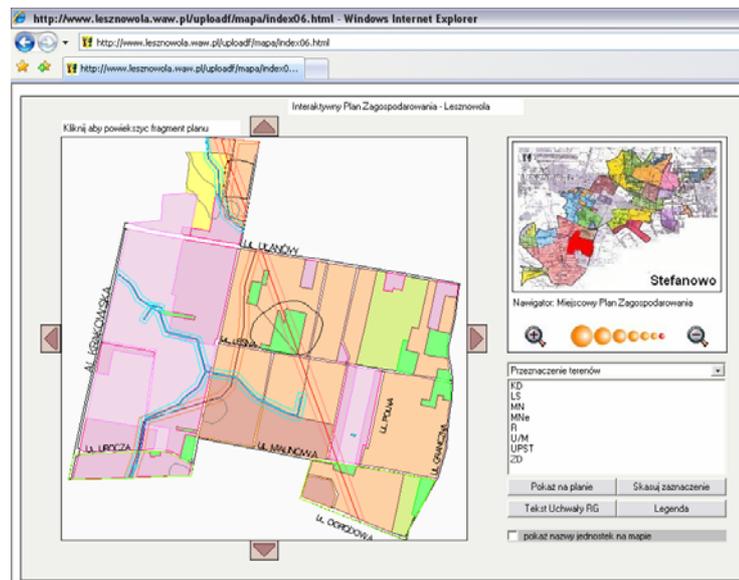
An Interactive system of presentation land – Use plans assume assistance for officials and inhabitants managing with complicated local government law in destination and use of area.

- Obligatory land – use plans of Lesznowola municipality:
- Adopted in 1999 – 2006 under previous law of spatial planning or present law.
- Makes up in scale 1:1000 or 1:2000
- It was worked out by different teams, so that's why for that same category of areas located close to each other but on different plans it is often suggest to making different spatial solutions.
- Used different, of ten authorial signatures on land – use plan drawing.
- It takes into account directions for land – use plans with documents from different periods on regional and national level.

That system in its assumption emphasize on graphical side of land – use plan – first of all user look at picture of the plan, then can acquaint oneself with text part. It is useful in addition to another manners of land – use plans representation on polish web sites – for finding a plan of concrete area it isn't necessary knowledge a number a resolution Commune Council, which in practice it isn't essential.

In IS land – use plan drawing was deprived many, often essential for making decisions settlements or informations, which can very seriously reduce of land usage. There isn't marked e.g. water intakes security zones, conservator security zones, borders of areas under protection of Nature Protection Law, archeological positions and others. It also doesn't placed maps on which was created land – use plans. Land – use plan drawing was bring to one information layer – land usage.

From point of user view the service has been simplified by elimination many functions. It has also influenced on speed of system functionality. However from law point of view it isn't a land – use drawing anymore, but just its authorial conception. User isn't informed about it on the main web site of the service.



Example of land – use plans of Lesznowola municipality

Penetrating analyze presenting solutions show many errors:

- Topological errors, in a few examples land – use plans adjoined to each other have the same parts.
- Unproper land use symbols. In few land – use plans on the drawind (and in legend) there appers symbols of zones which aren't mentioned by right resolution. It means that they haven't got authorisation by law and what is the most important they confused users.
- Lack of possibilities in presentation few land – use plans, which doesn't makes easier to compare land usage in nearby areas located behind working out plan.
- Lack of tools for finding concrete informations.
- Lack of update. After some time, it will be completely unuseable. Validity of system of Lesznowola municipality is march 2006. From that moment there was adopted few land – use plans more. Quality of data of IS has been veriflicated, it turns out that data doesn't fulfils main standards, witch has to characterized by:

Using data without quality standards not only unable reuse it in other projects but also seriously limit functionality of service. For example, it isn't possible to simultaneity view two neighboring plans, to get area information or especially to make a spatial analysis eg. investment capacity.

High award of Minister of Interior and Administration for Implementation of Interactive System of Presentation of Land-use Plans shows that problem of spatial management through several dozen land-use plans in one municipality is extremely troublesome. The chaos is growing with every new adopted land-use plan or with change of land-use plan that is currently in force. Municipalities are in urgent necessity of order information about managed space. But, as described example shows solutions that are not georeferenced. In this case simplicity has dominated over union of visualization and high degree of professionalism of this interactive service. Professional interactive service should be based on proved standards of geodata.

3 CONCLUSION

The most often advanced webservices of land-use plan presentations are based on Geographical Information Systems (GIS), that combines map with database. Thanks to using GIS it is possible to introduce into service advanced functionality (like searching and query database etc.) that are available for end-user from a browser.

Taking needs of different user's group and issues connected with such services maintain into consideration it should be consider to use alternative products. These must involves amount of latour and costs.

Good 'interactive service' characterize flexibility and multi-purpose in supply information. It should be on solid ground in the form of data layers and relational database management systems. It make possible

management gathering resources will be much effectively but edition, update and topology control will be relatively easy.

It is important that data made to needs of publishing land-use plans could serve other purposes. Data should comply with conditions which decide about accuracy and resources. Law in force provide for such requirements e.g. to define metadata (data about data) through ISO 19115.

In the Word and also in Poland there is variety of solutions In the field of publishing information about land-use In the Internet. There is a tendency to publish 'interactive' local land use plans providing complete information about land use abilities. The most important is not only land use but also information about barrier in investment. These information are most often part of big service which gather any spatial data about city or municipal, which in any way can be compared. Local governments apply methods, which enable to simplify management of huge amount of information and using attractive form of presentation.

There isn't a website service giving information about land use plans which could substitute for visiting in township administration. It is mainly due to difficulty in creating such plan which would allow easy and full join contents of drawing to plan designations (general and detailed). It resulting from stiff and statutory regulation of form land use plan. Therefore, it is important to place a clause in a website service that constitute: "Information presented on this website is not a law in formal understood and it cannot be use in administrative procedure. Graphical contents (map) are generated according to land-use plan designations, but its accuracy is not guaranteed. On no account the municipality is not responsible for any harms, including loss of data, profits, economic information and any other material or financial loss, resulting from use of content, that is presented in this Internet service".

Is it consequently possible to work out a land use plan in such form that it could be published on website and there wouldn't be a risk resulting from incomplete and selective information about rules of development? In some municipal practice preparing land use plan in the form of 'terrain card' is optimal solution. Such form of textual component of a land use plan requires multiple repetitions of significant fragments of text. In result, land use plan for small area with complicated spatial structure can numbered 1000 pages.

4 BIBLIOGRAPHY

FOGEL, P., FISZCZUK WIKTOROWICZ, J.: Jak zamawiać opracowania i usługi planistyczne z uwzględnieniem technik komputerowych, Człowiek i Środowisko 1-2/2004, 2004